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APPENDIX 3

**REPORT  
OF THE  
M16 RIFLE REVIEW PANEL**

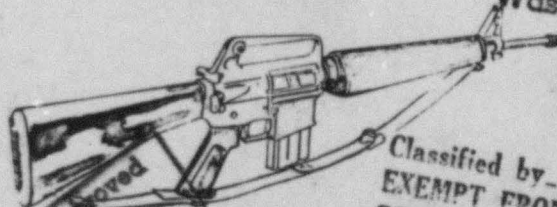


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**1 JUNE 1968**

REVIEW AND ANALYSIS OF M16 RIFLE TRAINING

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DEPARTMENT OF THE ARMY  
OFFICE OF THE DEPUTY CHIEF OF STAFF  
FOR RESEARCH, DEVELOPMENT, AND ACQUISITION  
WASHINGTON, DC 20310

REPLY TO  
ATTENTION OF

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1 FEB 1991

MEMORANDUM FOR THE RECORD

SUBJECT: Declassification Action - Report of the M16 Rifle Review Panel (C)  
dated 1 June 1968. [REDACTED]

1. The Report on the M16 Rifle Review Panel dated 1 June 1968 was prepared for the Office of the Chief of Staff of the Army, by the Office of the Director of Weapons System Analysis. The Ground Combat Systems Division, Office of the Director of Weapons Systems, Office of the Deputy Chief of Staff for Research, Development and Acquisition, is the successor to the originator of the report.
2. This office has completed a review of subject report and appendices 1 through 11 and has determined classification of Confidential is no longer needed. The report is now Unclassified. Selected extracts of the report are at Enclosure 1.
3. Notification of this declassification will be forwarded to all distribution addressees and a declassified copy will be forwarded to the Defense Technical Information Center, Cameron Station, for file.

1 Encl  
as

  
WILLIAM G. COOMER  
Colonel, GS  
Chief, Ground Combat Systems  
Division

*File*

Appendix 3

Review and Analysis of M16 Rifle Training




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### Appendix 3

#### REVIEW AND ANALYSIS OF M16 RIFLE TRAINING

##### A. History and Analysis of M16 Rifle Training Program

Military training is separated into two broad categories, individual and unit training. Individual training is further divided into functional and MOS training, and is normally conducted in the training base, which consists chiefly of the Army service schools and training centers.

Replacements to an overseas theater, in this case Vietnam, come directly from the training base, units, and installations. All replacements have to satisfy certain administrative and training requirements between the time they are notified of their overseas assignments and the time of their departure. These requirements are satisfied by means of preparation of replacements for overseas movement (POR) processing. When units are to be deployed, similar readiness requirements are satisfied during preparation for overseas movement of units (POM).

During 1966 and 1967, M16 rifle training was made a part of POR training for individuals and POM training for units. In addition, the Army put heavy emphasis on providing M16 rifle training to its new soldiers in the training base who were training to become infantrymen.

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And finally, some units elected to exceed the POM requirement by providing additional M16 rifle training during unit training.

Therefore, essentially four means have been used to provide M16 rifle training: POR, POM, individual, and unit training.

#### History and Adequacy of M16 Training

The history of training may be divided into four time phases, beginning in November 1963. No distinction will be made between the AR15, M16, XM16E1, and M16A1 except where it is necessary to understand the history of training.

Phase 1: November 1963 - February 1965. The initial requirement to train Army personnel with the M16 rifle arose in 1964 from the purchase of 85,000 rifles by the U.S. Army. Except for 338 rifles for test purposes, this was the first Army procurement. The contract was let in November 1963 (FY 1964) and the rifles were produced and delivered to the Army during 1964, 1965, and January 1966. The 85,000 rifles were procured by the Army to equip air-mobile, airborne, and special forces units. (For a complete accounting of the 85,000 rifles as of 9 November 1965 see Table 1.) (For dates of issue to major troop units, see page 3-73.)

The introduction of this new rifle -- the M16 -- into the Army started a chain of training events which began in February 1964.

In February 1964, the Department of the Army (DA) established the priority of distribution for the M16, with special forces first,

airborne divisions second, and the 11th Air Assault Division third. The same month the U.S. Army Weapons Command (USAWECOM) announced that new equipment training courses on the 5.56mm XM16E1 rifle would start at Lackland Military Training School, San Antonio, Texas, approximately 6 April 1964. The purpose was to train a minimum number of key instructors and maintenance personnel.

In March 1964, CONARC directed that training in the M16 rifle would be a unit responsibility and recommended a minimum training program. The U.S. Army Infantry School (USAIS) was to advise units and to assist in the conduct of instruction. The minimum training program was developed by the USAIS to provide transition from the M14 rifle to the M16 rifle. CONARC recommended this minimum course to the XVIII Airborne Corps and the Special Warfare Center in March 1964. The course was arranged as follows:

Orientation and Mechanical Training	2 hours
25-meter Instruction Firing (six rounds fired from each of eight standard firing positions)	3 hours
25-meter Battle Sight Zero (12 rounds)	2 hours
Automatic Fire (20 rounds)	1 hour

The course required 80 rounds of ammunition per student. Neither DA nor CONARC directed that replacement training be initiated on the M16 rifle.

In April 1964, USAWECOM arranged to conduct new equipment training courses for Army personnel at the U.S. Air Force Marksmanship School, Lackland Military Training School, Texas. Training was conducted by Air Force personnel of the Lackland Military Training School. Four soldiers and eight Department of the Army civilians attended the course.

On 7 May 1964, USAWECOM announced to USCONARC, U.S. Army, Europe (USAREUR), USARSO, and USARPAC that their commands would be provided a new materiel introductory briefing team and a new materiel training team to conduct operational, organizational, and field maintenance training for a nucleus of key combat and combat support personnel.

On 16 June 1964, USAIS stated a requirement to USAWECOM through USCONARC for 100 rifles. Rifles were issued during 1964 to the QM School, Ordnance School, Infantry School, and the Special Warfare Center.

In June, Technical Manual (TM) 9-1005-249-14, titled "Operating, Maintenance and Repair with Replacement Parts, Rifle, 5.56mm, M16 and Rifle, 5.56mm, XM16E1", was published. During the same month, the Ordnance Center and School at Aberdeen Proving Ground started a block of instruction on the M16A1 rifle in the Small Arms Repair Course. And finally, in June, CONARC provided DA with recommendations for changes to the Tables of Allowance for training ammunition

for the purpose of establishing an authorization for 5.56mm ammunition for training.

In July 1964, USAMC allocated 18,500,000 rounds of 5.56mm ball ammunition to CONARC to establish unit basic loads and to support training.

On 29 July 1964 USAWECOM asked USCONARC to reexamine the need for the briefing and training teams because of a shortage of training funds, and for other reasons.<sup>1/</sup> USCONARC passed the action to Third Army, which had the majority of M16 rifles. On 14 August Third Army replied that it had no requirement for the teams. In August 1964 both the briefing and the training teams visited USAREUR. On 31 August USAWECOM offered USCONARC a briefing and demonstration package for presentation at Forts Benning, Bragg, and Campbell; the briefings were conducted in October and November.

In August 1964, armor training was initiated in the General Supply Specialist Course MOS 768.2 at the Quartermaster School, Fort Lee, Virginia.

In December 1964, USAWECOM briefing and training teams visited USARPAC at Hawaii and Okinawa. This concluded the new equipment training program.

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<sup>1</sup> For other reasons, see page 3-158.

On 25 January 1965, FM 23-9, titled "Rifle, 5.56mm, XM16E1", was published, superseding Training Circular (TC) 23-8. During this period, the blank firing adapter was not in production; although as early as December 1963 USAIS had informed USCONARC and the USAWECOM that there was a requirement for a blank firing adapter in the Army.

In January 1965, at the request of Fort Gordon and USCONARC, Department of the Army authorized the issue of 250 rifles to Fort Gordon, Georgia, for the purpose of conducting M16 rifle training for airborne infantry replacements in the three entry level (lowest skill level) infantry enlisted MOS's. These rifles were received by Fort Gordon on 24 February 1965.

As of February 1965, the training base was as follows:

Training on the M16 rifle was a unit responsibility. Special forces units and the airborne units provided initial training to their own personnel and to replacement personnel.

Armorer instruction for the company level general supply specialist (organizational maintenance) was being conducted at the Quartermaster School, Fort Lee, Virginia.

Small arms repairman MOS training (field maintenance) was being conducted at the Ordnance Center and School at Aberdeen Proving Ground, Maryland. The Special Warfare School and Center also had a course in M16 rifle training; mechanical training consisted of

rifle description, nomenclature, characteristics, disassembly and assembly, operation, stoppages and immediate action, and maintenance; familiarization range firing was also conducted. Students in special forces and training adviser courses received 2 hours of instruction that included forty minutes of familiarization range firing. Special forces groups received 8 hours of classroom instruction, followed by range firing.

It should be noted that there was no indication that any M16 rifles other than the initial 85,000 would be purchased or used by the Army.

Phase II: March 1965 to December 1965. In March 1965 Fort Gordon initiated replacement training on the M16 rifle for airborne infantrymen in the three infantry enlisted entry level MOS's. The light weapons infantryman received 28 hours of instruction and the indirect fire crewman and the direct fire crewman received 4 hours of instruction. The purpose was to provide training on the M16 rifle to replacements en route to airborne units in Vietnam. It consisted of mechanical training, zeroing, and record firing, and was the only replacement training given during 1965.

From March to December 1965, the remaining special forces, the airborne forces, and the 11th Air Assault Division were issued the M16 rifle and unit training was conducted. During this period the

Army deployed four major combat units to Vietnam:

<u>Unit</u>	<u>Issue Date of M16 Rifle</u>	<u>Vietnam Close Date</u>
173d Abn Bde	Dec 64	Mar 65
1st Bde, 101st Abn	Aug 64	Jul 65
1st Cav Div (AM)	Jul - Aug 65	Sep 65
1st Inf Div	Jan - Mar 66	Jun, Jul, Oct 65

The first three units to arrive in Vietnam had been issued the M16 rifle in CONUS and Okinawa (173d Brigade) prior to deployment and were a part of the original plan under which 85,000 rifles were procured for airmobile, airborne, and special forces. The fourth unit, the 1st Infantry Division, deployed with the M14 rifle.

During this period, officer and enlisted replacements assigned to the first three units listed above did not receive M16 rifle training in CONUS. Exceptions to this were new soldiers who volunteered for airborne training and were assigned as infantry trainees to Fort Gordon for their advanced individual training, and replacements who came from the 82d or 101st Airborne Divisions. Some student officers at the USAIS received M16 rifle training. In-country M16 rifle training was not directed by U.S. Army, Vietnam (USARV) during this period, nor did USARV request DA or USCONARC to conduct M16 rifle training.

The following is an excerpt from the Special Operational

Report: Lessons Learned, Department of the Army Staff, 1 January 1965 - 31 October 1965, dated August 1966.

### Problem

Introduction of the M-16 Rifle into RVN without recognizing the training requirement within the training base.

### Discussion

The deployment of the Air Mobile Division and Airborne and Special Forces Units armed with the M-16 Rifle to Vietnam established an immediate need for individual RVN replacements to be trained with the M-16. This headquarters did not recognize the immediate need for M-16 training.

In July 1965, Fort Gordon submitted a report<sup>2/</sup> to USCONARC which showed experience obtained from training 1,022 trainees in a total of nine trainee companies in marksmanship on a record qualification course. This report stated that 1,022 men fired for record on the M16 rifle between 16 April 1965 and 23 June 1965. Of this number, 1,021 qualified (99.9 percent). Also, 1,091 men fired the M14 rifle on the same course of fire and on the same ranges between 12 January 1965 and 2 July 1965. Of this number 1,030 qualified (93.7 percent). Hours of instruction for both weapons were identical. Advanced infantry trainees expressed an "overwhelming preference for the M16 over the M14."

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<sup>2</sup> Ltr, Fort Gordon to CG USCONARC, 15 Jul 65, sub: Performance of Rifle, 5.56mm, M16.

On 21 July 1965 the Commander, U.S. Military Assistance Command, Vietnam (COMUSMACV), requested that current and planned United States troop units deployed to the Republic of Vietnam be armed with the XM16E1 rifle.

A Department of the Army staff paper, written in August 1965 and titled Analysis of Army Rifle Requirements, considered the request by COMUSMACV. This paper stated:

Reequipping selected combat forces with the XM16E1 could be done most expeditiously. The alacrity with which a unit can perform this changeover is exemplified by the recent results achieved in the 101st Airborne Division. In one battalion which was previously armed with the M14 rifle, 90 percent of the personnel qualified as experts with the XM16E1 rifle after the unit was reequipped and had conducted regular marksmanship training for 36 hours. In one company only 2 men failed to qualify as expert riflemen and both qualified as sharpshooters.

This analysis also pointed out that the Army had had no problem with the then current delivery schedule for ammunition.

Between July 1965 when COMUSMACV first requested M16 rifles and December 1965 when the decision was made to furnish M16 rifles, there is no evidence to indicate that any training plans were prepared by DA or USCONARC, nor is there evidence that those responsible for individual and unit training at DA and USCONARC were even aware of the possible introduction of M16 rifles into all combat maneuver battalions in, or to be deployed to, Vietnam.

During the months of September and October 1965, Department

of the Army, CONARC, and USAIS took action to establish Vietnam-oriented infantry advanced individual training (AIT) within the training base, specifically at Fort Gordon for airborne infantrymen, and at Fort Polk for standard infantrymen. The program was to be initiated at both Fort Polk and Fort Gordon on 1 December 1965 but did not include M16 training except at Fort Gordon where the instruction consisted of mechanical training and record fire.

Phase III: December 1965 to December 1966<sup>3/</sup>

Vietnam oriented-infantry AIT began at Fort Gordon and at Fort Polk in December 1965. M16 rifle training as planned was a part of the Fort Gordon program but not a part of the Fort Polk program.

On 6 December, COMUSMACV requested 170,000 rifles to equip American, Korean, and Vietnamese armed forces in Vietnam. The request was approved and a letter contract was let the following day for 100,000 rifles. At this time, there were 604 rifles in the training base. It is not known whether the training implications were considered in the decision to approve the rifles for Vietnam.

Commander in Chief, U.S. Army, Pacific, (CINCUSARPAC) sent a message to Commander in Chief, Pacific (CINCPAC) on 11 December. The message commented on COMUSMACV's request for M16 rifles and stated:

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<sup>3</sup> Information about the development of training literature is contained in Part D of this Appendix and will not be repeated here.

M16 is simple weapon to assemble, operate, and fire, and poses no training or maintenance problems. Recommend 4-day optimum training period. One day - mechanical training, functioning, assembly, disassembly, cleaning, and maintenance. Second day - firing positions, preliminary rifle instruction (PRI), and familiarization firing. Third and fourth day - record transition, field, and quick reaction course firing.

MACV asked USARPAC, on 11 December, to forward a recommendation to DA requesting that M16 rifle training be completed, within capability, for all infantry battalions, infantry squads of reconnaissance platoons, and infantry replacements before their deployment to Vietnam. This same message stated that MACV would direct that in-country units scheduled for receipt of M16 rifles conduct M16 training at the earliest possible date, and further, that the training would approximate the optimum training program (four days) previously recommended by USARPAC.

DA received this message from CINCUSARPAC on 31 December: "It is requested that where possible M16 training be completed for all infantry battalions, squads of reconnaissance platoons, and individual infantry replacements prior to deployment to Vietnam."<sup>4</sup>/

The Department of the Army arranged in December to borrow approximately 3,500 M16 rifles and 10.5 million rounds of ammunition from the Air Force during the period December 1965 - May 1966. The

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<sup>4</sup> Msg, CINCUSARPAC to DA, 31 Dec 65, sub: M16 Rifle Training.

Air Force M16 rifles were different from the Army XM16E1 rifles in that the Army rifle had a forward assist assembly; the Air Force M16 rifles were to be issued to the training base.

On 12 January 1966, 12 days after the USARPAC training request was received, DA dispatched a message to CONARC which asked that CONARC determine its capability to conduct the requested training.

The message read in part:

Request that USCONARC determine the capability to conduct this training with present and projected rifle and ammunition resources and advise DA of plan to accomplish NLT 19 Jan 66.

In formulating necessary training plans it is essential that consideration be given but not be limited to the following:

Weapons and ammunition for installations must be kept to the minimum consistent with the training requirement and with full recognition of the critical status of 5.56mm ammunition.

Possible reduction in ammunition requirements for M16 training now being conducted.

Consider possibility of training being provided at Ports of Embarkation for these individuals.

On the same day, DA notified USARPAC that (1) DA was taking action on the requested training; (2) delay was anticipated because of the necessity for redistributing rifle and ammunition assets; (3) future individual replacements and units might not be fully familiar with the XM16E1, since the M16 does not have the bolt assist; and (4) further information would be provided as plans became available.

USCONARC acted quickly on the DA request of 12 January. There were three implied mission contained in the DA message: (1) conduct POM training; (2) conduct POR training; and (3) initiate replacement training in the training base. USCONARC was to develop a plan that would provide for the execution of these three missions, and, at the same time, stay within the restrictive DA logistical guidance.<sup>5/</sup> DA had also directed that USCONARC give consideration to the possible reduction in ammunition requirements "for M16 training now being conducted."

The plan to train infantry replacements was developed in coordination with USAIS. First, USCONARC assumed that the term "individual infantry replacements" included infantry branch officers through the grade of major and enlisted men assigned in career groups 11B light weapons infantryman, 11C infantry indirect fire (mortar) crewman, 11F infantry operations and intelligence specialist, 11G infantry senior sergeant, and 11H infantry direct fire (recoilless rifle) crewman. (DA was to add career group 11D armor intelligence specialist). The assumption as to the definition of individual infantry replacement was included in the USCONARC response to DA.

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<sup>5</sup> Msg, DA to CG USCONARC, 12 Jan 66, sub: M16 Rifle Training.

Second, USCONARC planned to establish M16 rifle training in infantry replacement training centers. These centers provided military occupational skill (MOS) training leading to the award of MOS 11B, 11C, or 11H at the entry level, that is, 11B10. Fortunately, this plan was simplified because of the recently established Vietnam-oriented infantry advanced individual training (AIT) at Fort Gordon for airborne-oriented infantrymen and at Fort Polk for standard or nonairborne-oriented infantrymen. All new soldiers to be assigned to Vietnam as infantrymen were identified during basic combat training and assigned to infantry AIT at either Fort Gordon or Fort Polk. It was, therefore, only necessary to procure M16 rifles for Fort Polk, since Fort Gordon already had 500.<sup>6/</sup>

Third, since an individual infantry replacement could come from any school, unit, post, camp, station, or other installation in the Continental United States, USCONARC had to establish a system which would identify and provide training to every soldier in the specified MOS between the time he was alerted for Vietnam and the time he departed his home station, regardless of where he was located in CONUS.

USCONARC planned that all replacements levied from within each

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<sup>6</sup> As a result of a request submitted by USCONARC 21 January, 300 rifles were provided to Fort Polk in late February 1966.

army area would receive training at the area designated by the respective army commander. This training would be provided for men who were assigned to Vietnam; it was POR training, although the term was not used at first. USCONARC also brought to DA's attention the fact that replacements who were levied from the USAMC and the USACDC would have to be trained.

With respect to unit training, there were only two units with organic infantry elements tentatively scheduled for deployment to Vietnam at that time (January 1966): the 4th Infantry Division and the 11th Armored Cavalry Regiment. The quantity of rifles required to train these units could not be determined because it depended on the unit readiness dates, which had not yet been established. In any case, M16 rifle training was an additional requirement and would extend the training completion date of the two units.

USCONARC responded to DA on 21 January 1966; the following are pertinent extracts from the message.

It is . . . assumed that all infantry units in RVN are to be ultimately equipped with the M16 or M16E1.

With current and projected availability of M16s in training base, requirement to train personnel and units listed in reference C cannot be fully accomplished. The only infantry replacements who can be assured subject training are those levied from units equipped with M16E1 rifles, such as the Airborne units and those undergoing training at Fort Gordon and some officers attending school at Fort Benning.

This Headquarters is not aware of any projected increase in M16 or M16E1 rifles for this command.

CONUS armies are being notified to implement above training plan with M16/M16E1 rifles on hand or upon receipt of M16 rifles which are transferred to CONARC as requested paragraph 3, above.

The eight hour training course this command will prescribe involves 62 rounds of ammunition (for KD ranges) or 52 rounds (trainfire range), which according to estimated requirements can be supported with current ammunition availability.

It should be emphasized that the part of the plan referred to in paragraphs 3B and 7, above (POR) will be relatively costly in terms of TDY and training and maintenance personnel for the conduct of prescribed familiarization firing for non-Army training center RVN infantry replacements. In view of this condition, which is dictated by the limited number of M16s to be made available to this command, it is recommended that careful consideration should be given to the provision of the same number of weapons to RVN to conduct familiarization firing in-country rather than in CONUS.<sup>7/</sup>

Department of the Army approved the USCONARC training plan on 27 January 1966<sup>8/</sup> stating that (1) the USCONARC recommendation concerning the conduct of familiarization training on the M16 rifle in-country was not favorably considered; (2) CONARC would train USCDC and USAMC replacements; (3) port calls would not be extended for the purpose of accomplishing this training.

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<sup>7</sup> Msg, CG USCONARC to DA, 12 Jan 66, sub: M16 Rifle Training.

<sup>8</sup> Msg, DA to CG USCONARC, 27 Jan 66, sub: M16 Rifle Training.

The last point was particularly significant because, in addition to the limiting factors of rifles and ammunition resulting from their critical supply status, no time was provided to carry out the training mission. DA had prescribed in 1965 a 16-hour Vietnam-oriented training program for every replacement and unit en route to Vietnam for which training time had not been provided. The 8-hour M16 rifle program plus the 16-hour orientation program made the total POR-PCM training requirement for all Vietnam-bound personnel and units equal to 24 hours, for which no headquarters had provided training time.

Another factor complicated the plan for POR training. Men at stations that did not have rifles, or that did not have the proper range facilities, would have to travel to installations which did have the M16 rifle training capability. Neither the USCONARC message containing the plan nor the DA message containing approval was provided to USARPAC or USARV; the last two headquarters made no inquiry.

The DA-approved USCONARC plan satisfied the request made by USARPAC but it did not provide M16 rifle training for individual replacements with noninfantry military occupational specialties who were organic to infantry battalions and who were armed with the M16 rifle - for example, supply, communication, armorer, cook, and mechanic MOS. However, these specialties are common to so many

different units that if all the men possessing them were to receive training with the M16 rifle, a large number of them would serve in units armed with the M14 rifle.

One of the most important factors which ruled against extending M16 training to other MOS was the fact that more ammunition would be required. Although the USCONARC plan was based on the correct assumption that maneuver battalions were to be armed with the M16 rifle, there were already three major combat units in Vietnam that had been completely equipped (not just maneuver battalions) with the M16 rifle in the United States under the 85,000-rifle plan. Individual replacements to these units in noninfantry MOS did not receive M16 rifle training in the continental United States.

However, the stated MOS contained in the training plan did cover every man assigned to the three rifle platoons and the weapons platoon of the rifle company. Men filling the noninfantry MOS in infantry battalions prior to the deployment of the battalion to Vietnam would, and did, receive M16 rifle training under the plan because the battalions gave training, not just to infantrymen, but to all men whose assigned weapon was the rifle.

DA did not make provisions to have M16 rifle training accomplished in U.S. Army, Alaska (USARAL), USARPAC, USAREUR, or USARSO for infantrymen transferred from those armies to Vietnam.

On 31 January and 1 February, USCONARC provided information

and issued instructions to its subordinate headquarters so that the many required actions could be initiated to execute the M16 rifle training mission.

First, on 31 January, USCONARC told USAIS to prepare a training program for the conduct of M16 rifle training in Vietnam-oriented infantry AIT. The following guidance was given to USAIS:

Standardize M16 rifle training in RVN oriented Infantry AIT by using current training at USATC, Ft. Gordon as base.<sup>9/</sup>

The M16 rifle (USAF) will be used in lieu of M14E1 rifle in automatic rifle instruction and qualification firing for MCS 11B10, Light Weapons Infantryman.

Familiarization instruction and firing will be added for MOS 11C10, Infantry Indirect Fire Crewman and MOS 11H10, Infantry Direct Fire Crewman.

A lesser degree of skill was prescribed for MOS 11C10 and MOS 11H10 because the primary duty of these men was to operate their crew served weapons (half of the 11C's and 11H's in a rifle company are not even armed with the rifle).

USCONARC also instructed Third Army and Fourth Army to incorporate M16 rifle training as soon as practicable into Vietnam-oriented infantry AIT at Fort Gordon (in Third Army) and Fort Polk (in Fourth Army) as outlined by the training program to be developed by USAIS.

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<sup>9</sup> Fort Gordon had initiated M16 rifle training in March 1965.

The training program which was developed was patterned after the one being conducted at Fort Gordon. By early March, M16 rifle training was in the Vietnam-oriented infantry AIT at Fort Polk. The program for 11B rifleman was designated Supplement to Army Subject Schedule 7-11B10 Light Weapons Infantryman, and was the same as that conducted for rifleman armed with the M14 rifle. It consisted of 28 hours of mechanical training, zeroing, and semiautomatic and automatic rifle marksmanship training. Emphasis was placed on automatic fire. Mechanical training subjects taught were nomenclature, disassembly and assembly, rifle characteristics and capabilities, magazine loading and changing, stoppages, and immediate action. Care and cleaning training was conducted to include a prescribed 120-minute "practical exercise in the proper procedure for cleaning the automatic rifle." The terms "care and cleaning" and "maintenance" were used interchangeably throughout the training documents.

The training program was very detailed with reference to marksmanship. Qualification ratings and scores were established; provisions were made throughout the 28-hour program to provide remedial training for trainees who were unable to grasp any portion of the training. Trainees fired 234 rounds of ball ammunition and 148 rounds of tracer ammunition.

The Supplement to Army Subject Schedule 7-11C10 Infantry Indirect Fire Crewman and Army Subject Schedule 7-11H10 Infantry Direct Fire Crewman prescribed two hours of mechanical training to include operation, functioning, reduction of stoppages, and disassembly and assembly of the rifle. The learning objectives of the trainee were to be able to operate the selector, load and clear the rifle, disassemble and assemble the rifle, apply immediate action and reduce stoppages, and make sight adjustments.

The supplement also prescribed two hours of marksmanship training, with trainee learning objectives as follows:

1. Apply steady hold to the rifle;
2. Fire the rifle in its semiautomatic role from the prone, kneeling, and standing positions;
3. Fire the rifle in its automatic role from the bipod supported prone position.

Trainees fired 38 rounds of ball ammunition. The reference used for mechanical training in both supplements was FM 23-9.

On 1 February 1966, USCONARC informed the CONUS armies and others of the M16 rifle training mission for Vietnam replacements in MOS 11B, C, D, F, G, and H, and for infantry branch officers through the grade of major. USCONARC assigned responsibility for conducting the training to Army Commanders for personnel from their areas to include USACDC and USAMC personnel. Available information on rifle distribution was provided and the armies were instructed to distribute rifles for training based on "factors of troop density, minimizing TDY costs, and maximum utilization of available

weapons." The training program was explained and the armies were required to submit a progress and completion report. USCONARC also stated, "Pending receipt of rifles, individuals alerted for RVN will not be delayed because of lack of M16 training." Since there was uncertainty about the identification and date of deployment of units, the message advised, "Actions with respect to units which may be deployed to RVN and who require M16 training will be treated on a case by case basis." USCONARC anticipated that the program would "not be fully implemented until approximately 1 March due to the time factors involved in distribution of rifles and selection and training of personnel required to conduct the program."

The 8-hour program directed by USCONARC consisted of 4 hours of mechanical training and 4 hours of marksmanship. The scope of mechanical training was "Integrated conference, demonstration and practical exercises on nomenclature, disassembly, assembly, adjustment of sight tension, functioning, stoppages and immediate action, care and cleaning, lubricating, loading and unloading of the rifle."

Marksmanship training on trainfire ranges consisted of firing one of the two record courses used to qualify personnel during the basic rifle marksmanship course. Men used prezeroed rifles, checked the zero with three rounds, and then fired a total of 40 rounds at 28 targets at ranges varying from 50 to 350 meters from both supported and unsupported positions. When known distance (KD) ranges had to be used, men fired a record course using 50 rounds for 50 targets at ranges varying from 100 yards (92 meters) to 300 yards (276 meters).

In early February 1966, Fort Gordon requested additional M16 rifles for the purpose of arming each trainee with a rifle during his nine week training program.

USCONARC agreed to request enough rifles to equip each trainee in infantry AIT on condition that the rifles be provided only after sufficient M16's had been provided to initiate POR training. The Deputy Commanding General (DCG), USCONARC, considered it essential that RVN airborne infantry replacements undergoing training at Fort Polk be equipped with the M16 rifle throughout their entire AIT training cycle. Further, on 4 March 1966, a USCONARC staff paper stated:

DCG desires that DA be notified of the training shortcomings which currently exist (at Gordon and Polk) because of the limited rifles available to this command and requirement be placed on DA for the total quantities needed to adequately support above-mentioned training.

On 7 March 1966, a USCONARC internal staff paper listed the shortcomings:

Currently the 11B10, Light Weapons Infantryman, receives 28 hours of instruction on the M16 (or 4 days) during a 9 week training program. MOS 11C10, Infantry Indirect Fire Crewman, and MOS 11H10, Infantry Direct Fire Crewman, receive only 4 hours of instruction on the M16.

In effect, trainees in RVN oriented infantry AIT do not 'live' with the M16 rifle during training because there are not enough rifles available at Forts Gordon and Polk to equip individuals for the entire period of AIT training.

If graduates of RVN oriented infantry AIT are to be equipped with the M16 rifle upon arrival in Vietnam, then it becomes highly essential that the trainee be

issued the rifle for the entire nine-week course so that he will become completely familiar with it, gain confidence in it, and score better in qualification firing.

Regardless of the number of M16 rifles made available, however, Fort Polk and Fort Gordon were required to keep and use the M14 rifle to conduct tactical exercises requiring the use of blank ammunition. This was still true in March 1968 because the blank firing adapter was not fielded during the two-year period.

On 21 March 1966, USCONARC requested from DA 2,200 rifles for Fort Gordon and 2,230 rifles for Fort Polk and provided the following justification:

During the entire nine-week course at either training center mentioned above, the soldier's training is with the M14 rifle except for a brief period of 4 or 28 hours (depending on MOS) devoted to familiarization or qualification firing with the M16 rifle. The negligible time spent with the M16 rifle by these RVN infantry replacements is an unfavorable training limitation which this command desires to overcome by furnishing each trainee with the M16 rifle for the entire nine-week training cycle. Daily training with the weapon he is expected to fight with will develop a more efficient soldier, generate confidence and enable him to become thoroughly familiar with his weapon.

The rifles were issued in June, but in the interim the Fort Polk requirement had doubled because of the expansion at AIT capacity at Fort Polk resulting from increased Vietnam requirements. Thus the Fort Gordon letter request of early February 1966 culminated in rifles being issued five months later.

On 10 February 1966, in response to a question asked by the Army Chief of Staff in preparation for the Army Posture-Authorization and Appropriations Hearings, the Army Staff provided him the following information:

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Question: What is the training program for training personnel on the M16 rifle? Number of rounds fired per man in training? Ammunition limitations on the program?

Answer: 1. A twenty-eight hour training program on the M16 rifle is provided airborne volunteer trainees during Infantry Advanced Individual Training conducted at Fort Gordon, Georgia. The same M16 Rifle Training Program is tentatively scheduled to start at Fort Polk on 28 February 1966 for RVN Infantry Replacements. Effective 1 March 1966 all other Infantry Replacements destined for units equipped with the M16 rifle in Vietnam will receive 8 hours on M16 Rifle Training before being qualified for overseas shipment.

2. Trainees who will receive training in AIT conducted at Fort Gordon and Fort Polk will fire 382 rounds with the M16. Other Infantry Replacements destined for units in Vietnam will fire 50 rounds with the M16.

3. There have been no cutbacks in the M16 Rifle Training Program due to ammunition limitations.<sup>10/</sup> The M16 ammunition production during FY 67 will be the limiting factor on the number of M16 rifles distributed to units. Ammunition training requirements for the training base will have to be closely monitored for the first two quarters of FY 67 until maximum production rates are approached in 3d quarter FY 67.

USCONARC informed DA on 14 February 1966 of the total requirement for rifles to execute the POR mission. DA provided all but 85 of the rifles.

During February, CONARC authorized Fort Leavenworth and Fort Sheridan to modify the required M16 rifle firing because of range limitations at those two installations.

During 23, 24, and 25 February, the CONUS army progress reports were received at USCONARC. Without exception, these reports stated

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<sup>10</sup> The "Program," except at Fort Gordon, had not started. Ammunition was also to be a limiting factor on the training program developed for the M16 rifle.

that instructions had been issued to subordinate units and that training would commence as soon as rifles or rifles and ammunition were received.

In April 1966, USCONARC was experiencing problems in POR processing of individuals. This problem continued until, in late 1967, strict management controls were established at USCONARC, the overseas replacement stations, and the installations. The following is an extract from the April 1966 monthly notes of the Commanding General, USCONARC:

The arrival of non-POR qualified personnel at Army personnel centers for shipment to oversea commands continues to be a major problem area.

Also included in the notes was a reminder about the M16 rifle POR training requirement.

As of 30 June 1966, USCONARC had received the completion reports from all CONUS armies that stated that they had initiated POR training. Thus, from the time DA received the USARPAC training request on 31 December 1965 until the time USCONARC received reports that training had been initiated throughout CONUS, exactly six months had elapsed. Undoubtedly, some installations had started training before 30 June but how many and how long before is unknown.

As Vietnam requirements for infantrymen rose, DA decided in August 1966 to convert the standard infantry AIT at Fort Jackson to Vietnam-oriented AIT. Fort Jackson was issued 540 rifles and training was conducted by using these rifles as a pool.

Department of the Army sent a message to CINCUSARPAC 12 September asking "whether or not there is a need to provide the present

M16 rifle program to other Vietnam individuals and that these be identified by MOS for enlisted personnel and branch and grade for officers." This message was sent because of an Operational Report-Lesson Learned (OR-LL) dated 5 May 1966 from the 1st Cavalry Division which stated that during the period January - April 1966 individual replacements had been arriving without training on the M16 rifle.<sup>11/</sup> The DA message (1) explained which MOS were included in the recently directed POR training, (2) stated that rifles and ammunition had been allocated to support the training, and (3) declared "this training program began in March 1965." The DA message concluded:

It should be recognized that all the scheduled production of M16 rifles and 5.56 millimeter ammunition is currently programmed for Vietnam and that an expansion of the present M16 rifle training program could be supported only by diverting M16 rifles and required ammunition from that currently programmed for Vietnam.

The DA message was the first notification to USARPAC of the men identified by MOS who were being provided M16 rifle training in CONUS. The message did not explain the scope or duration of the training being provided. On 14 September USARPAC forwarded the same information to USARV; on 18 September a similar message was relayed by USARV to the field force headquarters and major units (divisions and brigades). A review of the responses shows that (1) with one exception, units did not desire expansion of M16 rifle training to men with other MOS (armor officers through the grade of Captain) and

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<sup>11</sup> The 1st Cavalry Division report is readily understandable because the POR program was not reported as having been completely initiated by the USCONUS armies until 30 Jun 66.

(2) in-country replacement training programs were believed to be an adequate solution to the problem of men arriving from non-CONUS areas without M16 rifle training.<sup>12/</sup>

During the period 7-10 October, the USARV staff developed the position that "expansion of the current CONUS replacement training on the M16 rifle is not warranted at this time." In doing so, the staff depended not only on the replies of units but also on past history. It screened all operational reports of lessons learned and all after action reports on file from the 1st Cavalry Division, the 173d Airborne Brigade, and the 1st Brigade, 101st Airborne Division. The only derogatory remark that could be found came from a December 1965 after action report of the 173d Airborne Brigade:

The M16 rifle performed well during the battle with relatively few stoppages experienced. The trouble that was experienced can be attributed to an accumulation of carbon in the chamber. This has resulted from a lack of chamber brushes and ruptured cartridge extractors which are urgently needed for the M16 rifle.

Therefore, on 10 October USARV sent USARPAC the following:

Requirement does not exist for M16 rifle training in MOS other than stated in paragraph 3, referenced message. CONUS M16 rifle training program does not assure that individual replacements arriving from areas outside CONUS has received this training. This problem is resolved by in-country replacement training programs conducted at division and separate brigade level.<sup>13/</sup>

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- <sup>12</sup> Msg, 1st Inf. Div. to USARV, 1 Oct 66.  
Msg, 3d Bde, 25th Inf Div to USARV, 26 Sep 66.  
Msg, 4th Inf Div to USARV, 24 Sep 66.  
Msg, 1st Bde, 101st Abn Div to USARV, 23 Sep 66.  
Msg, I Field Force to USARV, 1 Oct 66.  
Msg, 173d Abn Bde to USARV, 13 Oct 66.  
DF, ACoFS G3 to DCG USARV, 7 Oct 66, sub: M16 Rifle Training.

- <sup>13</sup> Msg, CG USARV to CINCUSARPAC, 10 Oct 66, Sub: M16 Rifle Training.

USARPAC informed DA and CONARC on 12 October 1966; USCONARC, in turn, dispatched the following message to the CONUS Armies on 17 October:

This HQ has been informed by CINCUSARPAC that there is no requirement to provide M16 rifle training to personnel other than those previously designated.

The actions described above occurred during the period 12 September - 17 October 1966. During this same period, rifles in USARV suffered an increased number of malfunctions. The 1st Battalion, 2d Infantry, 1st Infantry Division submitted an urgent equipment improvement recommendation (EIR) sometime between 8 and 15 September, stating:

Units of this battalion reported up to 100% stoppages at one time or another during fire fights. An attempt was made to determine the reason for this high percentage of stoppages by test firing seven (7) XM-16E1s with a weapons specialist from 701st Maintenance Battalion. Cause for stoppage could not be determined. (See attached letter.)

The "attached letter" contained a description of the results of test firing seven rifles. On 15 September, USAWECOM wrote the battalion, acknowledged receipt of the EIR, stated that the EIR had been changed from urgent to routine, that the condition cited had been investigated previously, and that, as a result, the chamber brush had been developed. USAWECOM also said that the battalion would receive another reply. On 24 September 1966, the battalion commander replied:

1. Reference your letter, subject as above, dated 16 September 1966. The chamber brush will not solve the problem.

2. Malfunctions can of course be caused by a dirty chamber, but that is not the primary cause of the failure to extract. I have personally examined weapons that malfunctioned and found them to be clean. Additionally this unit has fabricated chamber brushes using .45 caliber brushes, and has issued rubber finger cots to cover the muzzle and keep dirt out of the bore. All such improvisations have proved ineffective. Note that in the tests conducted by this unit, a new ordnance-cleaned weapon also malfunctioned.

USAWECOM on 3 October dispatched a maintenance specialist on duty in Vietnam to the battalion with instructions to determine the causes of the malfunctions and submit findings to USAWECOM. On 4 and 6 October inspections were made in the 1st Infantry Division by two maintenance specialists. The results were so alarming that they recommended that:

. . . a complete in-country technical evaluation of the problem be conducted by U.S. Army Weapons Command and U.S. Army Materiel Command representatives.

The USAWECOM maintenance specialists were also convinced by the results of their inspections that soldiers lacked training on care and cleaning procedures. So much so that they told the Project Manager, Rifles, that "nearly all malfunctions can be eliminated by a vigorous training program, in small arms operator maintenance and immediate action in cases of stoppage, being initiated USARV wide." The malfunction problem in the 1st Infantry Division and elsewhere in Vietnam culminated in a message from USARV asking technical assistance and stating in part:

Stoppages and malfunctions are being experienced on the M16E1 rifle by subordinate units in this command. Preliminary investigation by technical personnel from this headquarters, USAMC Consumer Assistance Office, and 1st Log Command indicated a training and maintenance problem exists.

This message was sent the day after the message which declared that "Requirement does not exist for M16 rifle training on MOS other than stated in paragraph 3, reference message" (DA stated MOS and infantry officers.)<sup>14/</sup> A USAWECOM team was dispatched to Vietnam, conducted training in operation, organizational, and field maintenance, and verified the fact that soldiers lacked proper training on care and cleaning of the rifle. There were no training representatives from DA or USCONARC on the team. The team also disclosed a lack of command supervision in some units as evidenced by the shortages in cleaning materials, shortages in spare parts, and dirty rifles. It appears inconsistent that USARV stated on 10 October to USARPAC that there was no requirement to train personnel in CONUS other than those being trained at that time, and on the following day USARV requested USARPAC to provide technical assistance (from USAWECOM) to solve a major training problem.

In October 1966 a second expansion of Vietnam-oriented AIT at Fort Polk was ordered. Polk requested only 267 rifles, although this expansion was the same increase in trainee load as that in the first expansion. The training center however was no longer basing its request for rifles on issuance of one rifle to each trainee for use during the entire AIT cycle, but rather on equipping every trainee with a rifle for only the first four weeks of AIT. These weeks of training included rifle marksmanship and gave the trainee four weeks of familiarity with the M16 rifle. Tactical

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<sup>14</sup> See above, p. 3-29.

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training was conducted during the latter half of the nine-week cycle; the M14 rifle was used because of the requirement for blank ammunition.

On 25 November, USCONARC dispatched the following message to Third and Fourth Armies with information to the three Vietnam-oriented infantry AIR training centers -- Fort Jackson, Fort Gordon, and Fort Polk:

Each AIT-Inf (RVN) trainee will have the M16 rifle in his possession from entry into AIT training until completion of the 9 week course. Where shortages exist to satisfy this requirement, submit requisitions to cover shortages.

Each RVN AIT-Inf trainee will be thoroughly familiar with the operation and maintenance of the M16 rifle upon completion of AIT training.

A result of this directive was that each trainee was required to have two rifles, the M14 and the M16. The M14 rifle was used for blank firing during rifle squad tactical training, individual combat actions, and patrolling. As another result of the USCONARC decision, 4,160 rifles were issued to Fort Polk and 2,392 rifles were issued to Fort Jackson during December and January; Fort Gordon had enough rifles.

The training centers accomplished complete conversion to all live firing with the M16 rifle on 15 April 1967. The availability of a blank firing adapter and blank ammunition would have brought about this conversion much sooner, since the training centers were

reluctant to provide trainees with two different rifles, which obliged them to shift constantly between issuing the M16 rifle for live fire and the M14 for exercises requiring blank fire. As of 15 March 1968, the requirement for both rifles still exists.

The DA staff submitted an operational report of lessons learned in August 1966 which included the following statements:

By message from USARPAC, DA was requested to insure that individual replacement assigned to Units in RVN armed with M-16 received adequate training prior to deployment. In order to meet the requested needs M-16 rifles and ammunition had to be redistributed within CONUS training base, instructions had to be issued to the field how the program would be accomplished, and requisitions submitted. While all this was taking place RVN was receiving replacements who were not ready to become members of a squad or team in combat.

Phase IV: December 1966 - February 1968.

In December 1966, a major change occurred in the training requirement. On 21 December, DA DCSLOG dispatched a message which stated:

In addition to units currently issued the rifle, 5.56mm, XM16E1 (airborne units, air mobile units, special forces and maneuver battalions in SEA) all other active Army units in SEA or scheduled for deployment to SEA will be issued the XM16E1 rifle.<sup>15/</sup>

This meant that all soldiers en route to Vietnam in every military occupational specialty would require training with the M16 rifle if they were presently armed with the M14 rifle. Heretofore, only

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<sup>15</sup> (SEA (Southeast Asia) was later changed to USARV (U.S. Army, Vietnam)).

those soldiers holding any one of six MOS and infantry officers through the grade of major required the training.

The message was distributed to ACSFOR but was neither coordinated with nor distributed to DCSPER. It did not contain training guidance. There was no training plan at DA or USCONARC, nor is there any evidence to indicate that training staff officers at DA or USCONARC were even aware of the plan to expand rifle authorizations.<sup>16/</sup>

USCONARC, realizing that it was already late, reacted immediately to the DA message. On 30 December 1966, USCONARC directed that M16 rifle training be expanded as follows:

All replacements alerted for VN, normally equipped with the M14 rifle will be qualified on the M16E1 rifle . . . . before they depart home station. This will also apply to all officer replacements through the grade of major . . . . Personnel assigned to units designated for RVN will be similarly qualified . . . .

USCONARC also directed that the training be conducted as POR processing and asked its installations to specify increased requirements for rifles and ammunition. Finally, USCONARC stated:

. . . currently scheduled departure of replacement(s) or units will not be delayed solely because M16E1 training cannot be provided before shipment date.

The expansion created a requirement for 1,739 rifles which were

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<sup>16</sup> It was a repetition of what had happened one year previously in December 1965.

requested by CONUS armies in February and which were issued in March, April, and May.

Also, during December, USCONARC was evaluating the adequacy of all M16 rifle programs as requested by DA DCSPER on 20 December who, in turn, had been urged by the Vice Chief of Staff on 18 November as follows:

I am convinced that our men going to battle in the frontlines are not getting enough shooting in training with the M16 and that the Army staff is not fighting to get more.

The Vice Chief of Staff had previously questioned the adequacy of M16 rifle training in the 9th Infantry Division while visiting that unit in September. He had also questioned the quantities of ammunition allocated the Army by the Joint Chiefs of Staff vis-a-vis those allocated the Air Force.

The DCSPER request to USCONARC had the objective of determining the adequacy of the then current M16 rifle training programs in support of individual replacements and unit deployment to Vietnam.

On 26 January 1967, a DA representative visiting Fort Ord was told that trainees who graduated from advanced individual training were being assigned port calls which did not provide sufficient time for the 24 hours of Vietnam training (16 hours orientation plus 8 hours M16 rifle). Men assigned to units and installations did not have this disadvantage because the losing commanders provided an availability date to DA.

In the case of trainees assigned directly to Vietnam, however, the port call dates are established by DA using training graduation dates as a departure point and without consideration of the 24 hours required for Vietnam training. Fort Ord recommended that five days be allowed to accomplish the training. USCONARC was asked by DA on 26 January if this problem had been identified at other training installations, and stated that it had already examined the problem and did not agree that additional time should be provided to accomplish the Vietnam training for individual replacements for two reasons. Individual replacements in the training base assigned to Vietnam normally received their orders during the sixth or seventh week of AIT. USCONARC believed that the required training could be accomplished during the eighth week of AIT. In addition, the housing situation precluded personnel being detained for an additional five days. For example, the weekly combat support training (CST) input at Fort Dix was 900 plus. Men assigned directly to Vietnam from AIT at Dix had reached a high of 400 in one week. Billet spaces were not available to accommodate these men for an additional five days.

In February 1967, USCONARC submitted an operational report-lessons learned for the quarter ending 31 January 1967, which stated in part:

## Expanded Use of M-16 Rifle in RVN

### General Situation

a. Earlier action (Jan 66) established a requirement to train selected RVN replacements (Inf) on the M-16 rifle in view of decision to replace the M-14 rifle with the M-16 in all maneuver infantry elements stationed in RVN. Training requirement was established by a CONARC message of 1 Feb 66, and training was implemented by Armies as quickly as M-16 weapons and 5.56mm ammunition were provided.

b. On 22 Dec 66, DA advised that effective with units deploying in Jan 67 and subsequent thereto, all personnel of such units having an M-14 rifle would receive an M-16 weapon in lieu thereof. Further that MACV was taking action to replace the M-14 rifle with the M-16 rifle in all units in RVN. Accordingly, all Armies were advised by CONARC to provide necessary M-16 training for all personnel (up to grade of MAJ) alerted for RVN.

c. As a result of these actions:

(1) Modified and emergency rifle marksmanship courses (and tables) must be resorted to because of two governing factors; ammunition availability and time available for training.

(2) Requirement to train on two rifles (M14 and M16) increases training time and is of particular concern to training centers which have training programs already expanded by other critical training requirements.

### Lessons Learned

a. Training centers and schools require timely notice of personnel scheduled for RVN (3 weeks minimum notice) to preclude holding personnel after completion of AIT or school course for necessary M-16 training.

b. Implementation of additional rifle training requires a minimum of three to four months to fully implement if rifles and ammunition are not on station and must be requisitioned.

On 4 February 1967, USCONARC responded to the DCSPER request

for an evaluation of M16 rifle training by forwarding a study entitled "Adequacy of M16 Firing." The following are pertinent excerpts from this study:

The existing M16 firing programs are based on limited resources of rifles and ammunition available at the time of implementation.

The report of the USAIS representative on the USCONARC training and liaison team visit to Vietnam, concerning weapons training and proficiency concludes that, (paraphrased) "training on weapons proficiency, and fire control and discipline should be reviewed in light of specific areas stressed by infantry unit commanders contacted" and recommends "Implementation of additional instruction on the M16 rifle to include care and cleaning for the infantry platoon leader."

c. Current M16 rifle marksmanship training programs have been tailored to each situation to keep within available time, ammunition and equipment limitations while satisfying the rifle marksmanship training objectives to the extent possible.

d. The report of the USAIS representative indicates that M16 training, as currently conducted, should be generally improved, with particular emphasis on care and cleaning, and fire control and discipline.

e. The provisions of AR 622-5, "Qualification and Familiarization," prescribe a broad and comprehensive marksmanship training program for newly developed weapons, 36-hours of training and qualification firing on Standard Course (Trainfire) "A1" or Modified Course (KD) "A1" (paragraph 8 or 10, ASubjScd 23-71) and allow for very little compromise. This prescribed program should be followed, with exceptions granted only for very extenuating circumstances.

f. Current M16 programs . . . although adequate for the situation up to this time, can and should be improved. Current programs do not provide adequate training

on maintenance (care and cleaning), fire control and discipline, and sufficient firing to attain the desired degree of proficiency with the M16 rifle.

The study also cited shortcomings in over-emphasis on automatic fire, and inadequate training for 11C and 11H MOS in Vietnam-oriented infantry AIT and for individuals deploying as members of units. The study noted:

Prior qualification firing with the M14 or other rifle serves as a good foundation for transition to M16 rifle marksmanship training. However, this should not be construed to mean that it is an adequate substitute for additional training with the M16. Although the time elapsed since basic marksmanship qualification in many cases is very short, the differences in configuration, performance and capability between the M16 and M14 are significant enough to warrant more than a nominal amount of retraining with the M16. A soldier needs to prove or confirm his ability with a new weapon. This proof or confirmation should be over the entire gamut of application, from point blank range to maximum effective range, semi-automatic and automatic fire. Comprehensive training of this nature is preferable to focusing on any one facet or capability.

The study concluded that M16 rifle training programs should be expanded and that

Prior qualification firing mitigates some of the requirements for basic rifle marksmanship training (75-hours) with the M16. The annual qualification courses (36-hours) are adequate to conduct the transition training.

The study recommended that the standard 36-hour marksmanship program as prescribed in the then current training literature be modified to integrate automatic firing and adopted as the standard course for M16 rifle marksmanship training for personnel being

deployed to Vietnam. (See Figure 3-1.) This recommendation included the statement:

This recommendation is subject to availability of sufficient time, ammunition, facilities, and weapons to support this training.

A second recommendation was made to adopt a modification of the standard course, also prescribed in the then current training literature, for marksmanship training "when limiting factors" so dictated. This course was 18 hours long. (See Figure 3-2.)

The third and last recommendation suggested that

Maintenance (care and cleaning) training, and fire control and discipline instruction be emphasized in all M16 programs.<sup>17/</sup>

DA DCSPER, evaluated the USCONARC study, recommended approval, and forwarded it to ACSFOR, the DA agency responsible for Army marksmanship programs. ACSFOR reviewed the study and sent approval to USCONARC on 15 April.

On 5 April, DA directed that all live firing in Vietnam-oriented infantry AIT be conducted with the M16 rifle. USCONARC had been developing ranges and targets to accomplish this and the USCONARC order of the previous November to have one rifle for each trainee had resulted in provision of the necessary rifles. Actual conversion from M14 live firing to M16 live firing was accomplished

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<sup>17</sup> At the time the study was made (January 1967), M16 rifle training programs were as shown in the resume in Figure 3-3.

### Figure 3-1 — STANDARD COURSE A1

(Extract From Paragraph 8, Army Subject Schedule 23-71)

<u>Period</u>	<u>Hours</u>	<u>Rounds/ Individual</u>	<u>Range</u>	<u>Subject</u>
1	1	-	-	Orientation
2	1	-	-	Mechanical training
3	5	36	25 meter	Preparatory marksmanship
4	4	48	25 meter	Fundamentals of marksmanship
5	7	36	25 meter	25 meter firing (battlesight zero) and target detection
6	8	56	Field	Field firing and target detection
7	4	56	Record I	Record firing I
8	4	40	Record II	Record firing II
9	2	32	Nite	Night firing
Totals	36	304		

### MODIFIED COURSE A1

(Extract From Paragraph 10, Army Subject Schedule 23-71)

<u>Period</u>	<u>Hours</u>	<u>Rounds/ Individual</u>	<u>Range</u>	<u>Subject</u>
1	1	-	-	Orientation
2	1	-	-	Mechanical training
3	5	66	25 meter	Preparatory marksmanship
4	3	12	25 meter	Fundamentals of marksmanship and battlesight zero
5	8	50	KD	KD field firing and target detection
6	8	90	KD	KD record I and instruction firing combat positions range
7	8	40	Combat Position	Record firing combat positions range
8	2	32	Nite	Night firing
Totals	36	290		

### AUTOMATIC RIFLE FAMILIARIZATION FIRING

(Extract From Section V, Appendix IV, C-1, FM 23-16)

<u>Period</u>	<u>Rounds/ Individual</u>	<u>Range</u>	<u>Subject/Remarks</u>
1	-	25 meter	Orientation--Integrate in period 4 of courses above
2	43	25 meter	Familiarization firing--Integrate in period 4 of courses above

Figure 3-2 — STANDARD COURSE A2

(Extract From Paragraph 9, Army Subject Schedule 23-71)

<u>Period</u>	<u>Hours</u>	<u>Rounds/ Individual</u>	<u>Range</u>	<u>Subject</u>
<u>1a/</u>	4	42	25 meter	Fundamentals of marksmanship, positions and battlesight zero
2	4	-	TD	Target detection
3	4	56	Field	Field firing
4	4	56 or 40	Record	Record firing I or II
5	<u>2</u>	<u>32</u>	Nite	Night firing
Totals	18	186 or 170a/		

MODIFIED COURSE A2

(Extract From Paragraph 11, Army Subject Schedule 23-71)

<u>Period</u>	<u>Hours</u>	<u>Rounds/ Individual</u>	<u>Range</u>	<u>Subject</u>
<u>1b/</u>	4	42	25 meter	Fundamentals of marksmanship, positions and battlesight zero
2	4	50	KD	KD field firing (practice)
3	4	50	KD	KD field firing (record)
4	4	-	TD	Target detection
5	<u>2</u>	<u>32</u>	Nite	Night firing
Totals	18	174		

AUTOMATIC RIFLE FAMILIARIZATION FIRING

(Extract From Section V, Appendix IV, C-1, FM 23-16)

<u>Period</u>	<u>Rounds/ Individual</u>	<u>Range</u>	<u>Subject/Remarks</u>
1	-	25 meter	Orientation--Integrated in period 1 of courses above
2	43	25 meter	Familiarization firing--integrate in period 1 of courses above

a/ Difference depends on whether record I or record II is used for qualification.

b/ Integrate mechanical training to include maintenance training (care and cleaning) and automatic rifle familiarization firing.

Figure 3-3 — CURRENT (JANUARY 1967) M16 FIRING PROGRAMS

Program of Firing in RVN-Oriented AIT

Light Weapons Infantryman

<u>Period</u>	<u>Hours</u>	<u>Rounds/ Individual</u>	<u>Range</u>	<u>Remarks</u>
1	6	54	25 meter	Zero semiauto, 6 positions
2	3	68	25 meter	Autofire, underarm, bipod supported prone, bipod supported foxhole
3	3	100	25 meter	Autofire, linear targets
4	2	12	25 meter	Sight changes, battlesight zero, adjusted aiming point
5	6	74	25-500 meter	Record practice, autofire, interim qualification transition course
6	8	74	25-500 meter	Record, interim qualification transition course
Totals	28	382		

Infantry Direct and Indirect fire Weapons Crewman

<u>Period</u>	<u>Hours</u>	<u>Rounds/ Individual</u>	<u>Range</u>	<u>Remarks</u>
1	2	-	-	Introduction, mechanical and maintenance training
2	2	38	25 meter	Familiarization firing
Totals	4	38		

Program of Firing for All Other Individuals Replacements,  
Officers, and Enlisted

<u>Period</u>	<u>Hours</u>	<u>Rounds/ Individual</u>	<u>Range</u>	<u>Remarks</u>
1	4			Introduction, mechanical and maintenance training 3 rounds
2	4	43 or 45	Qualification	confirming zero, 40 rounds qualification on record II or 50 rounds qualification on KD range. (Part of emergency proficiency course.)
Totals	8	43 or 53		

Program of Firing for Unit Deployments

<u>Period</u>	<u>Hours</u>	<u>Rounds/ Individual</u>	<u>Range</u>	<u>Remarks</u>
1	4			Introduction, mechanical and maintenance training 12 rounds
2	4	52 or 62	Qualification	zero on 25 meter range and 40 rounds qualification on record II or 50 rounds qualification on KD range. (Part of emergency proficiency course.)
Totals	8	52 or 62		

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by 15 April 1967. This was a significant improvement in training because it increased the trainee's use of the weapon under live fire field conditions by 32 hours. Now that rifles and ammunition had been provided in sufficient quantities to accomplish this conversion, and to equip the trainee for the entire AIT training cycle, the only reason for retaining the M14 rifle was to accomplish blank firing during squad tactical exercises. The M16 rifle blank firing adapter and blank ammunition were still not available.

On 15 April 1967, DA approved the USCONARC study recommendations and stated:

Restrictions on the use of 5.56mm ammunition for training have been lifted. However, it is recognized that range limitations prohibit complete and immediate implementation within CONUS of either the primary or alternate courses for M16 rifle marksmanship. Where these courses cannot be implemented, on-going M16 rifle training should be continued with the new courses to be phased in as rapidly as required ranges can be modified.

3. (U) It is recognized that there may be circumstances where of necessity, exceptions will have to be made in qualifying personnel under the referenced marksmanship courses. Abbreviated courses should be developed to meet such contingencies.

4. (U) Changes to appropriate training literature or new publications should be initiated.

In March, the following statements appeared in the monthly notes of the Commanding General, USCONARC, to major commanders, training centers, and schools:

The increased distribution of the M16 rifle on a selective basis requires special attention and command emphasis. The requirement to develop proficiency with both the M14 and M16 rifles for certain personnel, the importance of practical mechanical training on the M16, and the automatic fire capability will affect training plans.

Message, ATUTR-TNG 73580, HQ USCONARC 301910Z December 1966, provided for the expansion of M16 rifle training to include personnel and units alerted to RVN.

An evaluation of current M16 rifle training programs has been forwarded to Department of the Army. A copy of this evaluation, together with a request for analysis of capability to implement recommendations contained therein, will be dispatched to CONUS army commanders in the immediate future.

All replacements and members of units going to RVN must receive the most effective M16 rifle training which can be provided within available resources and time.

On 13 March 1967, USCONARC sent a letter to the CONUS armies which enclosed the study forwarded to DA and requested the armies to analyze the recommendations made by USCONARC in the study.  
(For the complete letter, see Inclosure 1.)

The next day, USCONARC directed USAIS to prepare three M16 rifle training programs which would be based on three different conditions of available training time: 32-40 hours, 16-24 hours, and 8-16 hours.

The CONUS armies' analyses of the USCONARC study arrived at USCONARC during late April and early May. All armies reported that they could execute the new programs only partially or not at all.

The major problem was nonavailability of training time for graduates of training centers and service schools.

The responses of all the armies were based on the USCONARC-stated assumption that sufficient rifles and ammunition would be available. All armies except First Army stated that additional ranges would be required to conduct the recommended courses.

Because of the army responses, USCONARC, on 14 July 1967, directed that the minimum training program would continue at eight hours for each man through the grade of major who was scheduled for deployment to Vietnam, either as an individual or as a member of a unit.

The scope of the program was defined in the USCONARC directive<sup>18/</sup> as:

D. Minimum Training Program (8 hours).

(1) Four hours - mechanical training - integrated conference and demonstration and practical exercise on nomenclature, disassembly, assembly, adjustment of sights, functioning, stoppages and immediate action, care and cleaning, lubricating repeat, care and cleaning, lubricating, loading and unloading of the rifle . . . .

(2) One and one-half hours -- battlesight zeroing; auto rifle FAM firing . . . .

(3) Two and one-half hours -- record firing . . . Trainfire record II range or two and one-half hours -- record firing . . . . KD field firing record range.

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<sup>18</sup> Msg, CGUSCONARC to CONUS Armies, 14 Jul 67, sub: M16 POR/ PQM Qualification Requirement for RVN.

The marksmanship part of the program was different from that established on 1 February 1966 in that it now required the man to zero his rifle and to fire it in the automatic role; the number of rounds fired increased to 108 or 118, depending on the range facilities available. The mechanical training was different only in that USCONARC had identified the proper training and equipment literature -- the most recent training aids available were to be used in the preparation and conduct of the instruction -- and had emphasized that care and cleaning were to be taught.

USCONARC also declared that the 36-hour course was the preferred training program and that the 18-hour course was the alternate preferred program.

In May and June, USCONARC was confronted with still another problem. As a result of a study of combat operations in Vietnam, DA had decided to reinforce rifle strength in Vietnam. Packets of men were to be shipped to Fort Lewis, where they would be sent on to Vietnam. USCONARC was determined that these infantrymen would receive the 18-hour M16 rifle training program, plus mechanical training and firing of the rifle in the automatic role with the object of developing "individual proficiency and confidence by individual care and cleaning and maximum handling of M16 rifle." Graduates of Vietnam-oriented infantry AIT were considered adequately trained. The immediate problem was to procure 200 rifles

so that Fort Lewis could conduct the training. USAFECOM informed USCONARC that rifles were not available in depot stock; DA, DCSLOG, informed USCONARC that weapons would not be available from production to satisfy the requirement. There were only 10 serviceable rifles in the maintenance floats of the two airborne divisions, and the Vietnam-oriented training centers could not furnish rifles.<sup>19/</sup>

Finally, USCONARC directed Third and Fourth Armies to ship 100 rifles each to Fort Lewis; rifles were not to be taken from training centers or schools and were to be returned to the armies after completion of training of the packet personnel at Fort Lewis. Fort Lewis decided to provide 22 hours of rifle training to all men who had not undergone the basic qualification course for the rifle, and 8 hours for all who had completed the training. The 8-hour course consisted of 4 hours of mechanical training and 4 hours of marksmanship. The 22-hour course was the USCONARC-developed 18-hour course, plus 4 additional hours of mechanical training.

In May 1967, M16 rifle training was included in the Senior NCO Orientation-Refresher Course, which prepared NCO's who were assigned to sedentary stateside duties for service in Vietnam. Rifle training in varying hours was also conducted in USAIS courses, including

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<sup>19</sup> Yet, as of 1 July 1967, Colt's Inc. had shipped 7,000 M16 rifles to Singapore under export license number 36818, dated 15 February 1967.

the infantry OCS, basic course, advanced course, senior officer orientation course, and ranger course, although the dates training was initiated are not known.

In August 1967, a representative of DA visited Fort Lee to observe armorer training. He discovered a 1960 Colt instructional pamphlet,<sup>20/</sup> which he found "is misleading and tends to mitigate against service training which stresses cleaning and proper lubrication." He also observed the same problem that Fort Ord had experienced; since there was no time provided for POR training, student armorers were taken out of MOS training to get the POR training. Thus, some student armorers missed the M16 MOS training in order to get M16 POR training. As a result of this visit, DA and USCONARC took action to determine whether the problem of absenteeism existed at other training installations. Finding that it did, USCONARC on 27 November requested authorization from DA to retain men at training activities for a maximum of five days beyond graduation to complete POR training.

On 31 August, the training literature which USCONARC had requested USAIS to develop in support of expanded rifle training was published.<sup>21/</sup> The previous 36-hour course was changed to 40 hours,

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<sup>20</sup> For discussion of the Colt pamphlet, see Appendix 3, section E.

<sup>21</sup> Army Subject Schedule 23-20 prescribed the master schedule of rifle programs and included lesson outlines. Training Circular 23-20 supported the subject schedule by providing detailed information on courses of fire.

the 18-hour course to 24 hours, and an Emergency Proficiency Course (EPC) of 16 hours was developed. The EPC was designed "to provide minimum marksmanship training in order to POR qualify selected active Army personnel. It should only be conducted when pressing movement schedules limit training time."

A resume of each of the three courses is shown in Figures 3-4, 3-5, and 3-6. The 40-hour course includes 120 minutes of supervised maintenance on the rifle, which is conducted as concurrent training. The same was true for the 24-hour course; in the 16-hour course supervised maintenance time was reduced to 90 minutes. The training literature also included an alternate course for each of the three courses for use at installations which possess only KD range facilities. The complimentary courses were 35 hours, 24 hours, and 16 hours, and did not prescribe concurrent training on care and cleaning.

On 17 October, USCONARC directed that all personnel through the grade of major scheduled for deployment to Vietnam, either as individuals or as members of units, would undergo as a minimum the 16-hour emergency proficiency course.<sup>22/</sup> USCONARC reiterated that the preferred course was the 40-hour program with the 24-hour program the preferred alternate course.

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<sup>22</sup> Except chaplains, female personnel, and conscientious objectors.

Figure 3-4 — COMBAT READINESS MARKSMANSHIP PROFICIENCY, STANDARD COURSE A1  
(The 40-hour course)<sup>1/</sup>

<u>Period</u>	<u>Hour</u>	<u>Lesson</u>
1	1	Orientation: role of the rifleman, course to be fired to include preparatory instruction, field firing, transition firing, and record firing.
2	2	Mechanical training: integrated conferences, demonstration, and practical exercise in disassembly, assembly, nomenclature, stoppages and immediate action, lubricating, and care and cleaning of the rifle.
3	4	Preparatory marksmanship and 25-meter firing: integrated conference, demonstration, and practical exercise to include aiming and steady hold, range procedures, safety precautions, positions, and battlesight zeroing.
4	4	Target detection: integrated conference, demonstration, and practical exercise to include single stationary targets and single and multiple moving targets. Locating and marking a combination of sound and multiple moving targets.
5	4	Field firing: conference, demonstration, and practical exercise utilizing the principles adjusted aiming point and engaging multiple moving targets.
6	8	Record firing and target detection tests: integrated conference and demonstration, range procedures, and safety on the range; practical exercise and examination in firing record I and record II; conference and practical exercise in target detection tests one, two, and three.
7		Fundamentals of automatic rifle marksmanship; integrated conference, demonstration, and practical exercise on positions, automatic fire, magazine changing, and fire distribution.

Figure 3-4 cont'd

<u>Period</u>	<u>Hour</u>	<u>Lesson</u>
8	6	Instructional firing.
9	8	Qualification firing.
Total 9	40	

<sup>1</sup> This course is designed for personnel with less than 10 years of active service.

Figure 3-5 — COMBAT READINESS MARKSMANSHIP PROFICIENCY, STANDARD COURSE A2  
(The 24-hour course)<sup>1/</sup>

<u>Period</u>	<u>Hour</u>	<u>Lesson</u>
1	1	Orientation and mechanical training: course to be fired, integrated conference, demonstration, and practical exercise on disassembly, assembly, and care and cleaning.
2	2	Preparatory marksmanship: integrated conference, demonstration, and practical exercise to include integrated act of shooting, principles of battlesight zeroing, range procedures, safety, and conduct of battlesight zeroing.
3	3	Target detection: integrated conference, demonstration, and practical exercise to include single stationary targets and single and multiple moving targets. Locating and marking a combination of sound and multiple moving targets.
4	3	Field firing: conference, demonstration, and practical exercise utilizing the principles of adjusted aiming point and engaging multiple moving targets.
5	4	Record firing: practical exercise firing record I or record II target detection test one.
6	3	Fundamentals of automatic rifle marksmanship: integrated conference, demonstration, and practical exercise on position, automatic fire, magazine changing, and fire distribution.
7	8	Qualification firing.
Total 7	24	

<sup>1/</sup> This course is designed for personnel with 10 or more years of active service.

Figure 3-6 — EMERGENCY PROFICIENCY COURSE "ONE"  
(The 16-hour course)<sup>1/</sup>

<u>Period</u>	<u>Hour</u>	<u>Lesson</u>
1	2	Orientation and battlesight zero: integrated conference, demonstration, and practical exercise in integrated act of shooting, principles of battlesight zeroing, range procedures, safety and conduct of battlesight zeroing.
2	3 (1½)	Field firing and mechanical training. Field firing: integrated conference, demonstration, and practical exercise utilizing the principles of the adjusted aiming point and engaging multiple targets.
	(1½)	Mechanical training: integrated conference, demonstration, and practical exercise in disassembly, assembly, care and cleaning, and stoppages and immediate action.
3	3 (1½)	Record firing and target detection. Record firing II: conduct record firing II -
	(1½)	Target detection: conduct target detection tests two and three.
4	2	Fundamentals of automatic rifle marksmanship: integrated conference, demonstration, and practical exercises on positions, automatic fire, magazine changing, and fire distribution.
5	6	Qualification firing.
Total	5      16	

<sup>1/</sup> This course is designed to provide minimum marksmanship training in order to POR qualify selected active Army personnel. It should only be conducted when pressing movement schedules limit training time.

The 17 October directive meant that the minimum POR training time for Vietnam was now 32 hours instead of 24 hours -- 16 hours Vietnam orientation plus 16 hours M16 training. Training time was not provided. Because of complaints from subordinate headquarters that the training time was simply not available, USCONARC was forced to retract the direction that the 16-hour course would be the minimum. On 3 November, USCONARC dispatched a letter which said, in part:

The training guidance . . . requires a minimum of 16 hours of M16A1 rifle training with 40 hours as the desired objective. Action is continuing to provide the necessary time for this training together with other required POR/PCM training.

Pending resolution of the problem of time and other limiting factors, it is necessary to aggressively pursue the attainment of the M16A1 rifle POR/PCM qualification requirements. When a shortage of time cannot be overcome, then a compromise may be made by reducing the minimum M16A1 POR/PCM qualification requirement to 8 hours . . . .

The 8 hours referred to was the minimum program prescribed in July 1967. The problem of training time was explained by an internal USCONARC staff paper on 19 October.

1. Vietnam POR qualification requirements have steadily increased to the point that current requirements are now 32 hours consisting of 16 hours of special subjects orientation and 16 hours of M16A1 rifle training.

2. The problem of insufficient time is particularly acute in training centers and schools. Programs of instruction do not provide time for POR qualification since virtually all the allotted time is devoted to MOS training . . . .

3. M16A1 rifle training was recently increased from a minimum of 8 hours to a minimum of 16 hours . . . . This change was the result of publication and distribution of TC 23-20 and ASubjScd 23-20 on 31 August 1967. The publication of the training circular and subject schedule was the result of a CONARC directed action to the USAIS to improve training literature and training on the M16A1 based on lessons learned and extensive debate on the M16A1 by news media.

4. This problem must be resolved in a manner that will provide the number of hours of POR training required to prepare an individual for duty in Vietnam. The problem is less acute in CONUS units and installations subject to levy of individuals, and in RVN-oriented AIT. As stated above, the most critical area consists of MOS producing ATC's and service school students on orders to Vietnam . . . .

The POR situation as explained above, combined with the problem at Fort Lee of sacrificing MOS time for POR time, caused USCONARC on 27 November 1967 to request assistance from DA. The following are excerpts from the USCONARC letter:

2. Headquarters USCONARC has conducted a survey to determine whether absenteeism from instruction caused by POR training requirements was a common problem encountered by service schools and training centers under the control of this headquarters.

3. Based on analysis, it concluded that:

a. POR training as presently conducted at many installations requires some training time to be diverted from the POI of the schools and training centers.

. . .

4. The implementation of a system of centralized POR processing at all CONUS installations has been directed by USCONARC. Assuming that no POR processing has been accomplished prior to an individual reporting to a

POR processing center, the minimum time required to assure compliance with Department of the Army and USCONARC POR qualification requirements is 40 hours or five 8-hour days. This includes travel time to other installations to conduct M16 rifle firing, e.g., Fort Monmouth to Fort Dix. At training centers and schools where instruction is conducted under a formal POI, this 40 hours cannot be absorbed without degrading MOS qualifying instruction.

5. It is, therefore, recommended that consideration be given to authorize the retention of personnel at training activities for a maximum period of five days beyond graduation to complete POR training (and processing when necessary) . . . .

DA responded on 1 February 1968 as follows:

This office has reviewed and coordinated your recommendation with other interested elements of the Army staff. In view of the Army's efforts to reduce student/trainee non-productive time, no additional training time is considered necessary for trainees assigned to Vietnam who have received RVN infantry training. For other individuals assigned to Vietnam, three additional days may be added to the training course in order to provide the required RVN POR/PCM training. For individuals assigned to other overseas areas, no additional time is authorized for POR training. POR processing will be accomplished during commander's and administrative time prior to completion of the training course, where possible . . . .

On 8 February 1968, the Chief of Staff approved a DCSPER plan to "Conduct M14 training for all recruits (in BCT), and in addition, provide twelve hours of M16 instruction for recruits scheduled for combat arms AIT," and, when sufficient rifles and ammunition become available, "conduct M16 training for all recruits, and, in addition, provide 12 hours of M14 instruction for all recruits except those scheduled for infantry AIT."

Also approved by the Chief of Staff is the conversion of the remainder of the standard infantry AIT to Vietnam-oriented infantry AIT.

At the request of the Vice Chief of Staff, DCSPER developed a plan to require oversea commands to provide M16 rifle training for personnel assigned from their commands to Vietnam. However, no direction has yet been issued.

#### Discussion of training programs

There have been inadequacies in M16 rifle training programs since early 1965. M16 rifles were first issued in 1964 and training responsibility was assigned to the units armed with the rifle. This system of training was effective only so long as units remained in the continental United States, or at least in a peacetime environment in which a training mission could be pursued. However, in March 1965, with the commitment of American troops to combat in Vietnam, the units could no longer be expected to train their replacement officers, noncommissioned officers, and enlisted men. Nevertheless, from March 1965 until July 1966 — a period of 16 months — there were no M16 rifle training programs except the following:

1. New soldiers who volunteered for airborne infantry training went to Fort Gordon from basic combat training and received M16 rifle training at Fort Gordon.

2. Beginning March 1966, new soldiers selected as infantry replacements for Vietnam received training at Fort Polk.

3. Armorers and small arms repairmen were trained at Fort Lee and Aberdeen Proving Ground.

4. Infantry officers and OCS candidates attending courses at the Infantry School at Fort Benning received M16 rifle training.

5. Military assistance training advisers and special warfare personnel received training at Fort Bragg.

The programs at Fort Gordon, Fort Lee, and Aberdeen Proving Ground were designed to qualify men in their MOS in the M16 rifle. The programs at Fort Benning and Fort Bragg were primarily for orientation and familiarization.

During these 16 months, training in CONUS was not provided for any other replacements going to units in Vietnam.

Although there were undoubtedly some installations in CONUS which executed the eight-hour POR program before 30 June 1966, the number of such installations and the number of men POR trained is unknown. It is known that all of the CONUS armies did not report having the necessary training resources until 30 June.

The initial POR training program approved by DA in January 1966 was a product of insufficient rifles and ammunition, priority for the M16's having been given to Vietnam. Rifle shortages, added to the fact that the training had to be performed as a part of POR

processing, dictated a short mechanical training and marksmanship program, which became the eight-hour program. The decision to execute the M16 training as a part of POR processing was governed by the fact that the soldiers who required the training could and did come from anywhere and everywhere throughout the continental United States. The only possible way to train them all was to funnel them through a facility that was universally required throughout the Army. The choices were three — (1) at the losing unit or installation, (2) at the overseas replacement station, or (3) at the gaining unit or installation. The first was chosen because the overseas replacement stations did not have training facilities and the gaining units were in Vietnam and therefore should not be responsible for the initial training of replacements which could be performed in CONUS. Too, the problem did not appear overly complex since only six closely related MOS and infantry officers were to be trained. Two shortcomings appeared in the first eight-hour program: the men were not required to zero their rifles and they were not required to practice automatic fire. These were corrected in July 1967. Also, the training provided to the 11C and 11H personnel was initially four hours in Vietnam-oriented infantry AIT while 11C and 11H personnel in deploying units and on individual levies received eight hours. It is difficult to judge this situation as one of differing levels of training for the same people however, because the

amount of informal training which the 11C and 11H received in AIT is unknown. Nonetheless, the level of training in AIT was raised to eight hours for the 11C and 11H in July 1967.

It is necessary to recognize that there is an appreciable lapse of time between the day on which DA "prescribes" training and the day when that training begins on the ground. From the evidence available, five months elapsed from order time to execution time in the case of the first eight-hour M16 rifle training program.

The analysis of training over the past two years also reveals the fact that the responsibility for POR training is not defined at DA or USCONARC. DCSPER has Army Staff responsibility for the training of the individual soldier in the training base. However, ACSFOR established the initial M16 rifle training program in January 1966 and still retains DA responsibility for rifle marksmanship programs, training literature, training devices, training ammunition, and, until quite recently, training films. If DCSPER is to be assigned responsibility for POR training, then the DCSPER training mission will require the monitoring of the POR training provided to individuals by units, including DCSPER visits to units to check the quality and completeness of POR training. These visits could create situations in which ACSFOR is checking a unit for unit training and DCSPER is checking the same unit for POR training. ACSFOR, of course, has responsibility for POM training. A better solution

would be to use the method employed by USCONARC, although it is an unwritten rule not entirely understood by all the staff. POR and POM would be the responsibility of the staff agency monitoring unit training — in this case ACSFOR. DCSPER-Directorate of Individual Training (Deputy Chief of Staff for Individual Training at CONARC) would be responsible for the execution (quality and completeness) of POR training at schools and Army training centers. Such an arrangement would insure adequate management of this type of training.

A review of reports of inspections of or visits to 31 major installations during 1966 and 1967 reveals that POR training and POM training varied in adequacy. Some units gave a minimum of training; others offered as high as 36 hours of formal training; some units even conducted tactical training with the rifle. Part of this variation in training is attributed to the expanding training programs during the two years and the increased ammunition availability beginning December 1966. Part is also due to availability of time and range facilities. The reports also reveal definite failings. A few installations had no training program at all.

At times there were not enough technical and field manuals on hand; some instructors were themselves poorly informed. Trainees did not know how to clean the rifle properly, or how to assemble it. There were examples of men being shipped to Vietnam without M16 training because port call dates had to be met. Some installations

as late as December 1967 were still conducting only the eight-hour program. There were also reports of men being well trained and exhibiting confidence in the rifle; some M16 rifle instruction was cited as being outstanding.

Providing training by the POR system has not proved satisfactory. POR training is designed as a brief refresher in a few mandatory subjects and as an orientation to an oversea station. Since 1965, however, it has been treated as an established training capability. Some of the problems which have been a part of POR training are:

1. A great decentralization of training is required. Uniformity of instruction, adequate range facilities, complete and timely training direction and regulation are difficult to achieve. Whereas in centralized-training at Vietnam-oriented AIT, for example, these factors are more easily dealt with.

2. Time was not allotted for POR training although it has taken a minimum of 24 hours since M16 rifle training was added in January 1966.

3. It is difficult to manage effectively at one installation the training of individuals coming from several different units in varying numbers, and on no fixed schedule.

4. Motivation of trainer and trainee must be constantly emphasized because the unit finds it difficult to become overly

concerned about a man who is soon departing, and who, in all probability, is with men from many other units who are being rushed through a training program administered by a committee that does not have a vested interest in the men. Officers and NCO's of a unit usually take an interest in the men in their own units.

5. Men escape POR training and thus escape M16 rifle training. Of 1,817 soldiers questioned on the recent DA survey in Vietnam, 410, or 23 percent, declared that they had not received any formal M16 training before they left the continental United States. This failure is attributed to administrative loopholes and to the fact that the Army will not delay port calls to give POR training. The problem became so acute that USCONARC, in November and December 1967, began to establish centralized points at each installation for processing oversea replacements. The POR points at Fort Benning and Fort Gordon were observed in early December 1967 to be doing an excellent job. It is also significant that only 4 percent of the men that went to Vietnam in December and January told the DA M16 Rifle Review Panel that they had not received M16 rifle training in CONUS, whereas the percentages for months prior to December were much higher.

Overseas commands were queried to determine whether the POR type of M16 programs are conducted for men transferring to Vietnam from these commands. All commands stated there were no such programs

except for USARSO, which has a voluntary program.

Present M16 rifle training programs consist of the Vietnam-oriented infantry AIT program and the POR and POM programs. The minimum POR-POM program is set at 16 hours, although installations may waive this course for the 8-hour program if time does not permit the longer training course. The 24- and 40-hour programs will not be used by most installations simply because the time is not available. This is especially true at schools and Army training centers. During predeployment unit training, however, units should be able to make use of the 40- or 24-hour programs since they normally have blocks of unit training time which allow scheduling flexibility. POM training is not necessarily restricted as is POR training, simply because a unit usually gets a great deal more advance notice of deployment than does an individual. Two additional purposes of the 40- and 24-hour programs are to provide an annual rifle qualification program for personnel with less than 10 years of service or more than 10 years of service, respectively.

Although POR training has been expanded and the loopholes are closed, it will never suffice to meet the objective of providing soldiers who are well trained in all aspects of mechanical and marksmanship knowledge, and who will go to Vietnam confident in their ability to handle their rifles under all conditions. POR training is long enough to teach the soldier what he needs to know

once, and to let him practice it once or twice. It is not long enough for him to become thoroughly knowledgeable and confident in his ability to fight with the rifle. That is to say, POR training is not long enough for him to become knowledgeable and practiced in its use — trained.

The Chief of Staff, Army, has already approved all measures to initiate M16 training in all infantry advanced individual training and in basic combat training. However, until enough rifles are available to put these measures into effect, the Army will continue to send soldiers, except the new soldiers who become infantrymen, to Vietnam with 8 to 16 hours of POR training. Future unit deployments should not be made until the unit has had a minimum of 16 hours of training. The availability of the blank firing adapter will increase the amount of time the soldier has his hands on the rifle and will also vastly increase his training time in Vietnam-oriented AIT and in unit training. In addition, CONARC has directed expansion of existing M16 rifle training to include initiation of new programs for officer and NCO supervisory personnel, trainees, students, and cadre, at schools and training centers.

#### Armorer and Small Arms Repairman Training

M16 rifle training was incorporated into armorer training at the Quartermaster School, Fort Lee, Virginia, in August 1964. Armorer training was a part of the General Supply Specialist Course,

then MOS 768.2. Training was conducted using the M16 Air Force model rifles. In October 1967, these rifles were exchanged for the M16A1 Army model rifle.

The General Supply Specialist, now MOS 76Y, is required to be a supply clerk and an armorer. The entry prerequisite for the course is aptitude GL 90, clerk. Aptitude GM 90 (general maintenance) is not a requirement, although DCSPER is studying a suggestion by the Assistant Secretary of the Army (I&L) to make it a requirement.

In August 1967, a Department of the Army representative visited Fort Lee and noted that only six hours were being devoted to M16 rifle training in the MOS 76Y course, insufficient time to include malfunction training. Subsequently, the training was increased to 10 hours. The objective and scope of the present instruction, effective 6 November 1967, were:

#### Objective

As a result of this instruction, the student will be able to do the following: given a weapon and punch, perform, without any help, general and detailed disassembly and assembly within a time limit of 20 minutes; given five malfunction situations, list corrective action required in not less than four of the situations within a time limit of 10 minutes; identify, within a 10 minute period, four out of five parts picked at random by the instructor. All actions and responses will be in accordance with standards established in TM 9-1005-249-14 and FM 23-9. Students will clean and lubricate weapon with the materials provided.

### Scope

General disassembly and assembly; detailed disassembly and assembly; functioning; detection and correction of common malfunctions; parts identification; organizational maintenance and inspection of the 5.56 MM Rifle, M16A1.

The DA representative also noted:

The classes I observed were well organized, properly supervised, and the instruction being presented was of a high order. The student workbooks, texts, and instructional handbooks meet the highest standards.

An Office of the Secretary of Defense field survey in Vietnam in September 1967 stated:

The training of maintenance personnel to include unit armorers (Army and Marine) was adequate predicated on increased proficiency in job performance acquired by on the job training (OJT) after arrival in Vietnam.

However, the report of the DA field survey in Vietnam noted:

It would appear, based on our limited sample, that a high percentage of the unit armorers lack formal training and adequate knowledge on M16 rifle maintenance. For example, none of the armorers we talked with knew that they should periodically lubricate detent springs. We observed frozen detent springs.

Periodic lubrication of the detent springs is now being taught in the MOS 76Y course.

At least some of the poorly trained armorers found by the Army field survey team were armorers not trained in any school. These men had been assigned to the armorers' job for lack of a school-trained MOS-qualified man to put in the job. They were without the

MOS and without the 76Y course training. USARV was considering the adoption of one of two proposed means of training these armorers — a mobile training team of USAWECOM maintenance specialists or individual training by divisions.

At present, the armorer is still not authorized to disassemble the lower receiver group of the M16. If he were, it would prevent evacuation of some malfunctioning weapons to the division. However, USAWECOM should provide a recommendation to DA DCSLOG on this matter and this is recommended in part G of this appendix.

The Department of the Army staff provided to the Vice Chief of Staff, at his request, a staff paper in February 1968 which stated that it is not necessary to provide a man to do only the armorer's job. The paper also stated that the man currently performing the armorer function should be located with the company headquarters section during a tactical situation.

M16 rifle training was incorporated into small arms repairman training at the Ordnance Center and School in June 1964. The original block of instruction called for 12 hours of training. Minor revisions were made in January 1966 and, as a result of Vietnam feedback, instruction was increased by 2 hours in March 1967, with the following objectives and scope:

Objectives

The student should learn in M16 training:

1. Characteristics and nomenclature.
2. Both general and detailed disassembly and assembly of the rifle.
3. Operation and the cycle of functioning.
4. Causes and corrections of malfunctions.
5. Field maintenance procedures to include care and use of common and special tools.
6. Purpose and use of publications during inspection and maintenance of the rifle to include serviceability charts.

#### Scope

#### Training covers:

1. Disassembly and assembly
2. Functioning
3. Malfunctions
4. Inspection and Maintenance
5. Performance Test
6. Written examination

In December 1967 and January 1968 a major course revision took place; it was based on task and skill analysis and further Vietnam feedback. The block of M16 instruction was increased by four hours and was taught, beginning in early March 1968, as follows:

<u>Subject</u>	<u>Hours</u>	<u>Changes</u>
Disassembly and Assembly	4PE	Barrel removal (+1 hour)
Functioning	3PE	Increase safety and detail functioning (+1 hour)
Malfunctions	3PE	Increase troubleshooting with faulty components (+1 hour)
Inspection and maintenance	4PE	Increase use of tools, gages and maintenance forms (+1 hour)
Performance Test	3E	
Written Examination	1E	
Total	14PE 4E = 18 Hours	

Representatives of the Ordnance School and the Quartermaster School received the new equipment training in April 1964 that was given by the Air Force at the Lackland Military Training School.

The OSD field survey team reported maintenance personnel adequately trained in the M16; the DA field survey team reached the same conclusion. Department of the Army, however, did not base its finding on testing or exhaustive questioning, but on the technical questions asked the repairmen concerning the rifle and on information volunteered by maintenance supervisors.

#### Training in Units

The purpose of this section is to provide a history of training conducted by units which were issued the M16 rifle in Vietnam and of training conducted by units which were issued the rifle prior to deployment.<sup>23/</sup> The first three units, the 173d Airborne Brigade, 1st Brigade, 101st Airborne Division, and the 1st Cavalry Division, were issued the rifle under the initial 85,000-rifle plan. The 173d Airborne Brigade received new equipment training in Okinawa from USAFECOM in December 1964 and, in addition, completed at least an eight-hour mechanical training and marksmanship program. The 173d Airborne was the only unit which received new equipment training on the M16 rifle. This unit was equipped with the rifle three months before it arrived in Vietnam.

<sup>23</sup> The date of issue of rifles and the date of arrival of units in Vietnam are shown in Figure 3-7.

Figure 3-7 — UNIT DEPLOYMENT DATES VS M16 RIFLE ISSUE DATES

<u>Unit</u>	<u>Issue Date of Rifles</u>	<u>Close Date in Vietnam</u>
173d Airborne Brigade	December 1964	March 1965
1st Brigade, 101st Airborne Division	August 1964	July 1965
1st Cavalry Division	July-August 1965	September 1965
1st Infantry Division	January-March 1966	October 1965
25th Infantry Division	January-March 1966	January-April- October 1966
4th Infantry Division	May-June 1966	January-August- October 1966
196th Infantry Brigade	July 1966	August 1966
11th Armored Cavalry Regiment	May-June-July 1966	September 1966
199th Infantry Brigade	September 1966	December 1966
9th Infantry Division	July-August 1966	December 1966- January 1967
198th Infantry Brigade	May-September 1967 <sup>1/</sup>	October 1967
11th Infantry Brigade	November 1967	December 1967
101st Airborne Division	August-December 1964	December 1967
3d Brigade/82d Airborne Division	November 1964- January 1965	February 1968

<sup>1</sup> Additional issue due to MTOE changes

The 1st Brigade, 101st Airborne Division, conducted a 36-hour program of marksmanship and mechanical training. The unit was equipped with the M16 rifle 11 months before it arrived in Vietnam. Both the 173d Airborne Brigade and the 1st Brigade, 101st Airborne Division were reported as having "satisfactory to good" maintenance by the USAFECOM maintenance team, which was in Vietnam during October-November 1966.

The 1st Cavalry Division conducted at least 8 hours of mechanical training and marksmanship practice. A battalion commander described the training given to the division.<sup>24/</sup>

. . . we had a rather extensive step-by-step training program in the firing, care, maintenance, assembly, disassembly, of the M-16 rifle, which all troops were equipped with. This included range firing . . . . and . . . . firing from the fantail of a ship enroute to Vietnam. We found the weapon very easy to train troops in maintenance of it and its firing.

The battalion commander also stated that M16 rifle training was part of a "real hasty training period." In Vietnam, the division conducted one additional hour of care and cleaning instruction and three additional hours of zeroing exercises and familiarization firing. The division was equipped with the rifle two months before arrival in Vietnam. Third Army representatives inspected on 26 July 1965 and subsequently recommended that spare parts be procured for the division.

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<sup>24</sup> Hearings before the Special Subcommittee on the M16 Rifle Program, pp. 4442, 4450.

The 1st Infantry Division arrived in Vietnam with the M14 rifle. From interviews conducted with battalion commanders, it is concluded that little M16 rifle training was conducted in CONUS. A few rifles were borrowed and some quick orientation and range training was conducted for key personnel. Apparently, mechanical training was not included. In January-February 1966, the Division's maneuver battalions were issued the M16 rifle. On 11 December 1965, MACV had directed USARV to start training as soon as possible for units scheduled to receive the M16 rifle. USARV prepared a message for the 1st Division, requesting information on the feasibility of training the 1st Division with rifles borrowed from the 173d Airborne Brigade. The message was never sent; it was returned to the originator on 3 January 1966.<sup>25/</sup> On 23 December a message was received by USARV indicating that the first shipment of M16's from CONUS would be arriving for issue to the 1st Division the first week of January. On 22 or 23 January, a representative from USARV G3 discussed the training problem with the Assistant G3, 1st Infantry Division, who indicated that it was not feasible for the 1st Division to use rifles from the 173d Brigade. The alternate solution for providing training rifles was to turn in weapons already in the hands of the 12th Aviation Group, 2d Signal Group, and other support units. While this possibility was being discussed, USARV received another message announcing the imminent arrival of the first group of M16

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<sup>25</sup> For reasons unknown to the Review Panel.

rifles and all alternative solutions were therefore dropped. The 1st Infantry Division preferred to wait for training until the M16's arrived and then plan its training program.

Again, from interviews, it is concluded that there were no division or brigade directives or plans for M16 rifle training within the 1st Infantry Division. Interviews with four officers who were battalion commanders revealed that the training was up to the battalion commander; each commander said he had a program — each being different from the others. From these interviews and the USAWECOM inspection in October 1966, it is also concluded that the division was without the technical manual and remained without it until October when 500 copies of this manual were sent to the 701st Maintenance Battalion at the request of that unit.

Part of the 25th Infantry Division was issued the M16 rifle in Hawaii, and part received it in Vietnam. The 1st Brigade conducted one week of training devoted to individual and crew-served weapons. The infantry battalions trained with the M16 rifle during this period, although the exact number of hours is unknown. A report submitted by the brigade indicated that a predeployment training program had been conducted, and that POM training was scheduled to include makeup training and training in subjects where additional emphasis was felt necessary.

The 2d Brigade deployed to Vietnam in December 1965 with M14 rifles; M16 rifles were issued in January 1966. With the exception of the 1st Battalion, 35th Infantry which received the rifles while on an operation, the brigade got its rifles in base camp. The 2d Brigade had participated in the SAWS test in July, August, and September 1965, and consequently had a number of NCO's who were thoroughly familiar with the M16. The brigade formed battalion committees with these NCO's and conducted training programs in base camp.

The decision to issue M16 rifles to the 4th Infantry Division was made in May 1966 by DA at the request of COMUSMACV. COMUSMACV (also in May) requested issue of rifles in CONUS to the 11th Armored Cavalry Regiment, the 199th Infantry Brigade, and the 9th Infantry Division. Prior to this time, the plan was to borrow rifles for the 4th Division to conduct M16 rifle training. Rifles were issued to the 4th Division in May and June. The division completed the eight hours of POM training, which had been established as a requirement by USCONARC on 1 February. A training staff visit was made to the 4th Division by ACSFOR and 6th Army representatives 27-29 April 1966. The report of the visit contained no mention of M16 rifle training.

A serious constraint to all unit training conducted during

1966 was the critical supply status of 5.56mm ammunition. This situation prevented issuance of rifles to units during unit training. Enough ammunition was set aside for men with infantry MOS to complete the eight-hour course. The units were also prevented from using M16 rifles for blank firing exercises during unit training because the blank firing adapter and blank ammunition were not available.

The 196th Infantry Brigade, initially scheduled for deployment to the Dominican Republic, was deployed to Vietnam in July 1966, arriving in August. The request to arm the 196th with M16's had arrived at DA on 27 June. The 196th was issued rifles 10 days before it departed. The brigade did some abbreviated training at Fort Devens and aboard ship. Some men received no M16 rifle training, the remainder received a small amount of hastily conducted mechanical training and range firing. Firing was also conducted off the fantail of the ship at floating garbage.

The 11th Armored Cavalry Regiment and the 199th Brigade carried out the eight-hour POM training program as did the 4th Division. Training staff visits were made to these units on 19 May (11th Armored Cavalry Regiment) and on 17-18 July (199th Brigade) by representatives of ACSFOR and First Army (11th Armored Cavalry Regiment) and by DCSOPS (199th Brigade). The visit reports

contained no mention of M16 rifle training. The 9th Infantry Division was issued rifles in July 1966 and conducted the eight-hour POM requirement.

On 23 June 1966, Fort Riley requested 925,000 rounds of ammunition to qualify all divisional (9th Infantry Division) and nondivisional personnel, rather than just riflemen, with the M16 rifle in the eight-hour POR-POM program. Fifth Army recommended approval and forwarded to USCONARC. In an attempt to hold ammunition expenditures to the minimum, USCONARC requested additional information which Fifth Army relayed, along with a request for justification. Fort Riley did not respond and the matter was dropped. After visiting the 9th Division in early September, the Vice Chief of Staff presented a problem to the DA staff:

My understanding at the 9th Division was that 50 rounds are authorized per soldier for familiarization with the XM-16E1 rifle. One commander said he was able to allocate 82 rounds per man. The course fired is a modified train fire course. This allocation of ammunition and this familiarization course do not appear to adequately prepare men to be good shooters. In the various live fire small unit exercises the M-14 is used because ammunition is available . . . . Department of the Army should be able to do better than this. The soldiers are fond of the M-16 . . . and have great confidence in (it). Submit a report of corrective action taken.

The DA staff replied:

Prescribed training allowances for the above weapons are as follows:

	<u>Qualification</u>	<u>Familiarization</u>	<u>Operation Readiness</u>
<u>M16</u>			
5.56 Cartridge B			
Ball	557	30	300

Experiences with these allowances indicate that they are adequate in promoting weapons proficiency and in maintaining unit operational readiness.

Criticality of the 5.56mm ammunition has necessitated that allocations to the CONUS training base be drastically curtailed. In the case of units which have been trained with M14 weapons, such as the 9th Infantry, and currently being equipped with M16 weapons, a familiarization firing with this weapon was substituted to offset the ammunition shortages. A 50 round ammunition authorization has been established for this purpose. Three hundred and eighty two rounds are allocated in case of other individuals taking initial rifle training. The reference 82 rounds being expended by the 9th Infantry is based upon the maximum quantity distributed by USCONARC from available allocated assets and an increase over the amount authorized for familiarization.

The Vice Chief of Staff pursued the subject of 5.56mm allocation with DCSLOG, and M16 rifle firing with DCSPER. This course ultimately led to the evaluation of all M16 rifle training programs by USCONARC, DCSPER, and ACSFOR from January to March 1967.

In November 1966, the Army Staff found it necessary to completely equip the 9th Division with M16 rifles in order to secure M14 rifles which, in turn, would prevent issuance of M1 rifles to active Army forces. The order was issued to USAMC on 16 November to ship 9,029

M16 rifles to the 9th Division. On 23 November, USARV sent a message to DA:

1. This headquarters appreciates the expediting of XM16E1 rifles to the 9th Inf Div . . . .

2. It is urgently requested that all future issue of XM16E1's to units scheduled for deployment to RVN be accomplished in sufficient time to permit training in the weapon prior to deployment.

DA replied in part:

- (2) Individual replacements in MOS 11B, 11C, 11D, 11F, 11G, 11H and Infantry Branch Officers through the grade of major receive 4 hours of mechanical training and 4 hours of familiarization firing expending 50 rounds.

- b. In units, personnel normally armed with the M14 in infantry and mechanized brigades of the 4th and 9th Div, in the 196th and 199th Inf Bde and the 11th Ar Cav Regt received as a minimum the training outlined in para 1a (2) above.

2. In spite of the short time between the issue of M16 rifle to 9th Div base units, directed by reference d, and the deployment of the 1st increment, those elements of the division received the requested training prior to deployment, as will units in the remaining increments.

3. The policy of providing the requested training to units equipped with the M16 rifle prior to deployment will be continued.

In January 1968, the 198th Brigade reported to USARV that its M16 rifle predeployment training consisted of "86 hours of instruction and each individual fired 1,479 rounds of M16 ammunition."

The 11th Infantry Brigade reported that it conducted 10 hours of instruction, plus range firing. Each individual was required to fire 325 rounds of ammunition.

The 101st Airborne Division, armed with the rifle since late 1964, reported that it conducted 18 hours of M16 instruction and required each individual to fire at least 212 rounds. The 11th Brigade and 101st Airborne Division also engaged in a 30-day training program in Vietnam which included M16 rifle marksmanship training.

Available final readiness reports from nine units, reports of command inspections, and reports of staff visits have been searched for any mention of M16 rifle training matters. An inspection of the 1st Cavalry Division resulted in the recommendation that rifle spare parts be procured. The 198th Brigade final readiness report stated that 263 rifles were still short as of 27 July 1967. These were issued in September-October, prior to deployment. The only unit which declared a publications problem — a minor one — was the 101st Airborne Division. The division reported that it was still short Changes 1 through 4 to TM 9-1005-249-14. All other unit final readiness reports stated "no shortages," "no critical shortages," "no manual shortages," and the like. Some few units listed many publication shortages, but none were of M16 rifle publications.

A number of factors influenced the adequacy of training within units prior to deployment, among them the critical supply status of rifles and ammunition, the lack of blank firing adapters and blank ammunition, the short lead time between issuance of rifles and deployment, and whether or not a unit was already equipped with the

M16 rifle. Another factor, difficult to assess but bearing directly on the adequacy of training, was personnel turbulence. The years 1965, 1966, and 1967 were buildup years for the Army. An analysis of final readiness reports and DA staff papers relating to deploying units reveals a tremendous amount of personnel turbulence. Reports of personnel shortages persist throughout all unit reports. Some of these personnel shortages were serious from both the quantitative and qualitative view. For example, in the final readiness report of the 4th Infantry Division, the 1st Battalion, 8th Infantry declared itself 31 E6 squad leaders, 11B40, and 50 E5 team leaders, 11B40, short. Undoubtedly, the positions of squad and team leaders were filled by somebody, but obviously with a grade and experience level below that intended for optimum performance of the teams and squads.

Many of the units had personnel shortages during training, and consequently personnel fillers, who joined after training started, lacked some training.

A number of units were conducting individual training, basic combat training and advanced individual training before deployment. This training had to be completed before unit training could start. The 4th Division, 9th Division, 196th Brigade, and 11th Brigade were some of the units which had an individual training mission.

A further complicating factor was that unit training programs were reduced in some cases from 13 weeks to 8 weeks.

Still another factor which tended to weaken training was the substitution of 11C indirect fire crewmen and 11H direct fire crewmen for 11B weapons infantrymen. The formation of small rifle units from 11C and 11H men was practiced in Vietnam.

The following lesson learned was reported by USCONARC in March 1966:

COMMENT

Rifle Availability

An added burden has been placed on unit training by the lack of stability in the types of individual weapons to be used, decisions to change to the M16 have compounded training problems due to the nonavailability of sufficient numbers of the M16 to effectively support a training program.

Vietnam Training

As of April 1966, USARV had not published specific training directives requiring replacement training. It had published on 1 February 1966 a regulation requiring each major subordinate commander to insure that an effective command orientation program was conducted in his own command, and it had published material to be used for replacement orientation. Further, on 15 April, MACV directed USARV to initiate plans for appropriate orientation and training of newly arrived replacements as a means of maintaining the level of training qualification. In April the units reported the status of their replacement training in the M16.<sup>26/</sup>

<sup>26</sup>

Author underlining

a. 1st Air Cavalry Division: . . . Weapons firing, M16 and M79 grenade launcher, 4 hours . . . .

b. 1st Infantry Division: . . . Replacements received 6 hours of training on the M16 rifle at the division replacement company . . . .

c. 25th Infantry Division (-): All replacements receive an orientation at the replacement company. At battalion level each replacement participates in a three (3) day training program, including: Zeroing of Rifle, familiarization firing of weapons . . . .

d. 3d Brigade, 25th Infantry Division: All replacements received 2 hours weapons training . . . .

e. 1st Brigade, 101st Airborne Division: All replacements receive 40 hours of training to include . . . 12 hours of weapons and weapons and related training, . . .

f. 173d Airborne Brigade: Up to 32 hours of training at battalion level to include: Battle Drill, patrolling, First Aid, Communications, Small Unit Tactics, Night Training, Air Mobility and Camp Defense Plan. (Amount of M16 rifle training, unknown.)

On 13 May 1966, USARV published Training Circular 3, which established the requirement to conduct zeroing and familiarization firing as follows:

1. PURPOSE: To prescribe policy and provide guidance for commanders in establishing a training program for firing individual weapons.

2. OBJECTIVES: To insure each individual assigned a weapon has fired that weapon for familiarization and proper zero.

3. POLICY: Each individual will become familiar with his individual weapon through an organized training program. Personnel will receive instruction and undergo live firing practice with assigned weapons as a prerequisite to assignment of duties involving use of firearms. In consideration of the high personnel turnover this program will be repeated at least quarterly.

USARV Regulation 350-1 was published on 28 July 1966 and did not specifically mention M16 rifle training, but there were a number of references to weapons training and replacement training.

Excerpts are:

Training Policies

Individual replacements arriving in Vietnam directly from CONUS and assigned to combat organizations will receive transition training prior to participation in combat operations.

Training programs developed at each level of command will:

(1) Emphasize the development and maintenance of individual combat proficiency for all personnel.

Training Guidance

Special attention will be given to:

1. Weapons proficiency.

Sentry Duty: To insure all personnel are qualified to perform sentry duty, a program of instruction will be conducted to cover as a minimum the following points.

a. Proficiency with weapon manned while on duty.

Qualifications in arms was listed in Appendix I, Mandatory and Recurring Type Training. The regulation stated with respect to these mandatory and recurring subjects:

However, commanders are authorized to deviate from these requirements when in their judgment the operational missions of their units necessitate and justify such deviation.

Appendix V to the regulation, titled Replacement Training, prescribed policy and provided guidance for commanders in establishing a training program for replacements assigned to combat organizations. It required all newly assigned personnel to receive weapons training upon arrival at their new organization.

On 20 November 1966, USARV published Training Circular 5, which directed the establishment of a two-hour care and cleaning program. A preventive maintenance indicator check list was attached to the circular.

USARV Regulation 350-1 was changed 3 March 1967, 10 November 1967, and 1 January 1968. The 3 March 1967 change required certain minimum rifle training requirements for replacements assigned to USARV units in addition to the two hours of care and cleaning:

b. Major subordinate commanders of combat, combat support and combat service support units will establish training program for replacements. The training programs will provide for training of replacements within seven days of their assignment and, as a minimum, will cover the following subjects:

(1) Familiarization firing and zero of individual weapons and other weapons as appropriate.

(2) . . .

This was a restatement of the May 1966 requirement but was more specific as to the "who" and "when" of the training.

On 11 June 1967, COMUSMACV conducted a commanders conference, during which he used a talking paper which stated in part:

I want a concerted effort made by all commanders to insure that every rifleman is thoroughly proficient in the use and care of his weapon. Adequate cleaning materials are available to maintain this rifle. If you need technical assistance, it will be provided by support units on request. As a minimum, you should take the following actions within your commands:

A. Provide each soldier armed with M16 the proper cleaning equipment and lubricant and insure that he uses it correctly.

B. Perform frequent inspections to ascertain that weapons are being maintained properly.

C. Encourage the prompt reporting of malfunctions to support units for analysis and assistance.

D. Encourage the submission of equipment improvement recommendations, DA Form 2407.

Training was further increased and refined by other changes.

As of 1 February 1968, USARV had prescribed M16 rifle training as summarized below:

25. SMALL ARMS FAMILIARIZATION FIRING PROGRAM:

a. Units will establish a training program to insure that each individual becomes thoroughly familiar with his assigned weapon. This program will stress preliminary marksmanship instruction prior to the conduct of live fire exercises. Range operations will be conducted in accordance with the procedures outlined in Appendix VIII.

b. All units will make necessary arrangements with local ARVN authorities for the use of suitable ranges in their immediate area.

c. Familiarization will be conducted as required; however, all personnel will take fire familiarization training at least semi-annually. Annual arms qualification is authorized as a substitute for one semi-annual familiarization firing.

26. CARE AND CLEANING OF THE M16A1 RIFLE: Due to the high turnover of personnel in this command the limited availability of this weapon outside of RVN, a training program will be established by all units who have personnel armed with this rifle. Training will include a minimum of two hours of instruction on care and cleaning of the weapon and will be presented as often as required to insure that all personnel are thoroughly familiar with the weapon. The check list for preventive maintenance indicators at Appendix IX will be used to assist in the conduct of this training.

b. Operational commitments permitting, major subordinate commanders will schedule each maneuver battalion and reconnaissance unit to receive one week of refresher training every three months. In any event, this training will be accomplished at least every six months. Refresher training should be oriented to the needs of the individual unit. This refresher training will include, as a minimum, . . . .

(a) Marksmanship

c. Additionally, each new platoon leader, platoon sergeant and squad leader assigned to a maneuver battalion or reconnaissance unit will receive, as a minimum, a three-day course of instruction covering . . . .

(c) Weapons training with emphasis on care and cleaning, inspections, and maintenance of the M16A1 rifle.

c. Major subordinate commanders of combat, combat support and combat service support units will establish training programs for replacements. The training programs will provide for training of replacements within seven days of their assignment and, as a minimum, will cover the following subjects:

(1) Familiarization firing and zero of assigned weapon and other weapons as appropriate.

On 30 January 1968, USARV directed by message that combat support and combat service support units conduct special training when they received M16 rifles as replacements for M14 rifles. The training prescribed consisted of four hours of mechanical training, one and a half hours of zeroing and automatic rifle familiarization firing, and two and a half hours of record firing.

On 26 January 1968, USARV sent the following request to DA:

1. Request consideration be given to expanding basic, advanced individual, and POR training in maintenance functioning, care and cleaning, malfunctions, stoppages, and application of immediate action for the M16 rifle system.
2. Recurring incidents in USARV units indicate the individual soldier needs more training in the functioning of the M16 rifle and the immediate action portions of training in these areas prior to departure for RVN would assist the soldier to cope with stoppages.
3. In-country training on the M16 is being extended to include subjects enumerated in para 1 above.

On 8 February, the Chief of Staff approved a plan to initiate 12 hours of M16 rifle training in basic combat training.

Training has not been uniformly adequate throughout Vietnam. The training problem uncovered by the USAWECOM maintenance specialists in October 1966 is well documented and is briefly explained below.

During September and October some USARV units were experiencing serious problems with the M16 rifle, particularly the 1st Infantry Division. As a result, on 11 October, USARV requested technical assistance from USAWECOM. USAWECOM dispatched a team and, with the assistance of USAWECOM personnel already in Vietnam, conducted extensive training in first, second, and third echelon maintenance. USAWECOM identified the following problems:

It is concluded that the malfunction problem with the XM16E1 Rifle did exist and was the result of insufficient training of the personnel prior to using the weapon; a shortage of technical manuals, repair parts, and cleaning equipment; a lack of knowledgeable officers and NCOs and an apparent lack of CONUS emphasis on maintenance training.

Other pertinent extracts are:

In all classes the students brought their own weapons, magazines, ammunition, cleaning material, and accessories. A detailed inspection of each weapon as well as the ammunition and magazines revealed that with the exception of the 1st Brigade of the 101st Abn Division, the 173rd Abn Brigade, and the 5th Special Forces Group, the weapons were in an unbelievable condition of rust, filth, and lack of repair. The filthy condition ranged from actual dirt, grit, and mud on various components of the weapon and ammunition to a heavy carbon deposit on various components. The most significant trouble spots were the chamber, the outside of the gas tube extension in the upper receiver, and the inside of the carrier key. Questions asked of the students in the 1st and 2d echelon classes revealed (with the exception of the three units mentioned) that the weapons has been issued to the units just before they came to Vietnam or after they were in Vietnam, CONUS replacements had had training in marksmanship only, there was a shortage of repair parts, and there was a shortage of officers and NCOs who knew anything about maintenance of the rifle.

The 1st Brigade of the 101st Abn Division, the 173rd Abn Brigade, and the 5th Special Forces Group were the only units who had received training with the rifle for a significant period of time prior to deployment to Vietnam. In these units the maintenance of the rifles was satisfactory to good, even though the original people deployed with these units have for the most part rotated.

1st, 2d and 3rd echelon instruction was not given to the combat brigades of the 1st Cav Div. This division stated that they were not having any trouble with the rifle and requested that the instruction be given only to the small arms shop of their maintenance battalion.

Although USARV training directives have been adequate, the actual training has not been. This fact was documented by the report of the M16 Rifle Field Survey conducted by the OSD Directorate for Inspection Services in Vietnam, August - September 1967. This report stated:

The interview of individual riflemen in South Vietnam disclosed that compliance with MACV training directives had not been achieved to the desired degree. This was caused by some failure to communicate to the operating units, down to the individual rifleman, the training directives issued by MACV and major subordinate commands. There was also some failure in the chain of command to follow up the implementation of the directives in order to achieve compliance.

The report also stated in part:

Specific deficiencies in M-16 rifle training which were identified as contributing to the past incidents of malfunction were:

(a) Unfamiliarity with proper techniques of care and cleaning of the rifle, magazine and ammunition, and improper use of cleaning materials and equipment.

(b) Unfamiliarity with proper type and amount of lubrication to be used.

(c) Lack of knowledge on the part of Junior Officers and NCO's of the proper standards of maintenance and cleanliness as well as inspection techniques to determine marginal or unsatisfactory weapons.

One finding pertained to training:

Training in CONUS could be improved by additional emphasis on familiarization firing, use of improved cleaning techniques, rifle disassembly and assembly, and application of procedures to reduce stoppages (immediate action).

The OSD report of the survey was never sent to the Army Staff for action.

The continuing training deficiencies were further documented by the results of the DA M16 Rifle Review Panel field survey conducted in Vietnam, January - February 1968. This panel concluded, "Troops have received inadequate and improper training on care and cleaning . . ." Another conclusion was, "Supply and training (directives) on the M16 are generally complete but are not adhered to." These conclusions stemmed from the following facts:

The replacement training centers in the two Army divisions were not teaching the use of bore cleaner. One center taught that the bore could be cleaned with water. Neither of the two centers had the USARV training directive nor were they conducting the training according to the USARV directive. At one center, most of the time of the care and cleaning class was used for actual care and cleaning

of the weapon, without accompanying detailed instructions on how to clean and lubricate the various parts. The two centers made no distinction between men who had no training and men who have been thoroughly trained. Although the OSD team found that dirty magazines contributed to malfunctions, one center did not teach disassembly and care of the magazine, despite the fact that the care and cleaning class took about 30 minutes less time than the two-hour minimum established by USARV. Insufficient attention is paid to marksmanship proficiency in that 44 percent of all Army personnel who filled out questionnaires stated that they had either never zeroed their weapons (10 percent) or had not confirmed the zero in the last three months (34 percent). Finally, of all Army troops completing questionnaires, 29 percent stated they had never received M16 rifle training in Vietnam.

A check of trip reports at G3 Training, USARV, revealed that at least five units during the period October - December 1967 were not conducting care and cleaning, zeroing, and familiarization firing, as required by USARV. In some cases, the training had never been initiated. As a result, the Deputy Commanding General, USARV, directed that a series of corrective actions be executed by USARV units to solve training problems. This directive emphasized that every man would receive M16 rifle training and would zero his weapon and fire it for familiarization. Further, each soldier would confirm his zero at least twice a month.

## B. Availability of M16 Rifles for Training

### Training Base and Preparation of Overseas Replacements Requirements.

Formal Army training with the M16 rifle was initiated in 1964. Since then, training has expanded and is now conducted in three environments or categories: (1) training base, conducted at schools and training centers; (2) preparation for overseas movement of units and unit training, conducted in units; and (3) preparation of replacements for overseas movement training, conducted at installations. The history of rifle distribution for training purposes is fairly simple during the period from November 1963 to February 1965, but subsequently it becomes more complex. For this reason, the first and third categories of training through February 1968 and the second category through February 1965 will be covered in this section; the next section will examine preparation for overseas movement of units and unit training after February 1965.

#### Phase I: November 1963 - February 1965, Pre-Vietnam Period

During this phase, the Army procured 85,000 rifles, issued them to airborne, airmobile, and special forces units, and CONARC made rifle training a unit responsibility. Rifles were also provided for armorers and small arms repairmen training, and for the infantry and special warfare schools.

#### Phase II: March 1965 - December 1965

During this phase, the Army issued rifles to the 1st Cavalry

Division (Airmobile), and to Fort Gordon for replacement training.

Phase III: December 1965 - December 1966

On 6 December 1965, COMUSMACV requested approximately 170,000 rifles for American, Vietnamese, and Korean troop units in Vietnam. The Army could not satisfy this request. It had only 85,000 rifles; some of these were already in Vietnam and had been included in COMUSMACV's calculations in arriving at the requirement for an additional 170,000 rifles. Further, the Army had no infantry replacement training on the M16 in the training base except for airborne infantry at Fort Gordon. There were only 604 rifles in the training base in December 1965. These were located as follows: 250 at Fort Gordon (airborne infantry replacement training); 76 at Fort Lee (armor training); 36 at Aberdeen Proving Ground (small arms repairman training); 131 at Fort Bragg (special forces training at school and center); and 100 at Fort Benning, Georgia (infantry school officer and enlisted training). In addition, Fort Hood, Texas, had 10 rifles and Fort Knox, Kentucky, had 1 rifle.

During December 1965 and January 1966, two major training activities were being developed within the United States Continental Army Command (USCONARC). The first of these, Vietnam-oriented advanced individual training for infantrymen, had been directed by DA and was initiated at Fort Gordon, Georgia, and Fort Polk,

TABLE 3-1 — DISTRIBUTION OF XM16E1 RIFLE AS OF 9 NOVEMBER 1965

<u>Unit or Organization</u>	<u>Number of Rifles</u>
<u>CONUS</u>	
82d Abn Div	11,800
101st Abn Div (-)	8,366
3d Special Forces	597
6th Special Forces	881
7th Special Forces	1,362
1st Psy Warfare Bn	75
13th Psy Warfare Bn	75
Special Forces Tng Group	300
Special Warfare School	65
Training Centers	832
Comd Support Element STRICOM	416
ASA Unit Ft. Lewis	45
3d Army NCO Academy	10
Military District of Washington	6
USAR (Special Forces)	500
ARNG (Special Forces)	697
TOTAL	26,027
<u>USAREUR</u>	
Special Forces	1,408
<u>USARSO</u>	
Special Forces	1,002
93d Brigade	615
3d Civil Affairs Group	23
Maintenance Float	82
TOTAL	1,722
<u>USARPAC</u>	
173d Abn Brigade	2,665
1st Special Forces Group	1,630
25th Infantry Div	25
1st Cav Div (AM)	13,089
1st Bde, 101st Abn Div	3,434
5th Special Forces Group	1,208
Air Mobile Co (Teams)	1,074
OPPLAN SEA (Automatic Resupply)	5,746
PIR (Classified)	2,267
TOTAL	31,138
<u>Loans and Test</u>	477
<u>Presently in Depot Stocks</u> (combat consumption)	4,987
<u>Due in for Depot Stock</u> (combat consumption)	19,241
(Jan 66)	85,000

Weapons and ammunition for installations must be kept to the minimum consistent with the training requirement and with full recognition of the critical status of 5.56mm ammunition.

USCONARC was already aware of the fact that the Army was searching hard for rifles and 5.56mm ammunition for Vietnam because in late December 1965 DA had informed USCONARC of the Army plan to borrow M16 rifles and ammunition from the Air Force and exchange the M16 rifles for the XM16E1's located in the CONUS training base. The XM16E1's would be applied against the Vietnam requirement of 170,000 to provide troops in Vietnam with the Army version of the Air Force M16 rifle.<sup>30/</sup>

USCONARC responded to DA on 21 January 1966, stating: "With current and projected availability of M16's in training base, requirement to train personnel and units . . . cannot be fully accomplished." However, USCONARC directed the CONUS armies to execute the training with rifles on hand or upon receipt of M16 rifles, if and when CONARC received additional M16 rifles.

The plan to provide USCONARC with Air Force M16's in exchange for XM16E1's in the training base was initiated. In January 1966 there were 854 XM16E1 rifles in the training base: the 604 rifles on hand in December 1965, plus the 250 issued to Fort Gordon in late December 1965 as a result of the assignment of the Vietnam-oriented AIT mission. On 11 January 1966, DA informed USCONARC that 1,545

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<sup>30/</sup> The XM1631 has a forward assist assembly; the Air Force M16 does not.

Air Force M16's were immediately available to exchange for the XM16E1's on hand to assist in the new training mission. On 27 January, DA informed USCONARC that 333 additional Air Force rifles would be available each month, January through April, and 666 in May. The USCONARC order to execute the USARPAC-requested training went to the CONUS armies on 1 February 1966.<sup>31/</sup> Instructions therein for rifle distribution were based on getting the 1,545 rifles immediately available, plus the 333 for January and the 333 for February, a total of 2,211 rifles. USCONARC had to surrender all XM16E1 rifles in the training base and execute the training mission. USCONARC allocated 1,531 M16 rifles to the training base and the remaining 680 rifles to the CONUS armies for initiation of the M16 rifle POR training in each Army area. The USCONARC order of 1 February also stated that because of time factors involved in the distribution of rifles and the selection and training of personnel needed to conduct the program, it was anticipated that the program itself would not be fully implemented until approximately 1 March.

By 14 February 1966, USCONARC had identified and reported to DA the quantity of rifles considered necessary to execute the M16 rifle POR training mission. Initially, the number requested was 1,007; this number was reduced by 154 at DA request, and USCONARC submitted

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<sup>31/</sup>Msg, CG USCONARC to CONUS armies, USA CDC, US AMC, Schools, 1 Feb 1966, Sub: M16 Rifle Training.

a revised request for 853 rifles for POR training. These rifles were in addition to the 854 required to replace XM16E1's in the training base and the 300 required at Fort Polk for the new M16 rifle training mission there.

On 17 February 1966, DA informed USCONARC that 768 rifles could be provided against the 853 required, a shortage of 85; additional weapons would be provided when available; and there were no plans to obtain additional M16 rifles from the Air Force at this time.

In February, at the same time that DA and USCONARC were attempting to get rifles for the POR mission, USCONARC was also looking for rifles to improve the quality of training in the Army training centers for new infantry replacements. Fort Gordon in February had 500 rifles and was training; Fort Polk was awaiting issue of 300 rifles in order to start M16 training. The rifles at both Fort Gordon and Fort Polk were used as a pool. One company of trainees used the M16's during that part of the training cycle which called for automatic rifle marksmanship training; at all other times during the training cycle, the M14 was used.

USCONARC believed that every trainee should have an M16 rifle for the entire period of advanced individual training. Accordingly, on 21 March 1966, USCONARC requested 2,200 rifles for Fort Gordon and 2,230 rifles for Fort Polk. At this time, Fort Gordon still had 500 rifles on hand and Fort Polk had received its 300 rifles and had

started training on 7 March 1966. The USCONARC letter request<sup>32/</sup> went to Assistant Chief of Staff for Force Development (ACSFOR), who passed it to the Deputy Chief of Staff for Logistics (DCSLOG). On 7 April 1966, a USCONARC fact sheet noted: "DA advises they (the rifles) cannot be made available for at least six to eight months due to RVN requirements for weapons now under procurement." On 12 April 1966, DCSLOG requested DCSPER to validate the requirement since the rifle was a closely controlled item of supply.<sup>33,34/</sup> On 20 April 1966, a USCONARC staff paper stated: "DA DCSLOG advises that there will be no issues (of M16 rifles) to USCONARC from this production (FY 1966 production) until RVN requirements have been satisfied. Best estimate of possible delivery date of any M16E1 rifles to USCONARC is December 1966." Subsequent to the USCONARC request, action had been taken by DA DCSPER and USCONARC to expand the training input capacity at Fort Polk from one to two companies, effective 6 June 1966, to accommodate increased Vietnam requirements. Therefore, DCSPER, in coordination with USCONARC, doubled the Fort Polk rifle requirement and, on 27 April 1966, stated the requirement to DCSLOG as: Fort Polk, 4,460 rifles; Fort Gordon, 2,200 rifles. In keeping with the established priorities for allocation of the M16, however, DCSPER recommended to DCSLOG that these rifles and associated equipment be furnished as soon as the RVN maneuver battalions' requirements were satisfied. To insure that Polk

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<sup>32/</sup>DF, ODCSLOG to DCSPER, 12 April 1966, sub: M16 Rifle Requirements.

<sup>33/</sup>DF, ODCSLOG to DCSPER, 12 April 1966, sub: M16 Rifle Requirements.

<sup>34/</sup>DCSPER had received responsibility for individual training functions from ACSFOR in November 1965.

had the minimum number of rifles to initiate and accomplish the training mission, DCSPER further recommended that 300 rifles be made available to Fort Polk prior to 1 June 1966. But on 8 June 1966 neither the desirable quantity of rifles (Fort Polk, 4,460 and Fort Gordon, 2,200) nor the minimum number (Fort Polk, 300, plus the 85 previously shorted) had been issued. On 9 June, USCONARC DCSLOG informed USCONARC Deputy Chief of Staff for Individual Training (DCSIT) that DA DCSLOG had directed USAWECOM on 6 June 1966 to ship, via air parcel post, the 300 minimum to Fort Polk to satisfy the increased training missions. Weapons were to arrive at Fort Polk prior to 20 June. Marksmanship training for trainees was scheduled to start 27 June. The 300 rifles for Fort Polk arrived by 17 June 1966.<sup>35/</sup>

The DA message directing USAWECOM to issue 300 rifles to Fort Polk was dispatched on 3 June, not 6 June 1966. The message also allocated an additional 4,500 rifles to the CONUS training base, or a total of 4,800. These 4,500 rifles were sub-allocated by USCONARC as follows: 2,045 to Fort Gordon; 2,453 to Fort Polk. Sufficient rifles were thus provided for Fort Gordon; Fort Polk was still short 2,556,<sup>36/</sup> and there

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<sup>35/</sup>In September 1966, USCONARC DCSLOG reported in a fact sheet that 1,007 M16 rifles had been issued to installations for POR training. This report indicates that USCONARC had received the 85 rifles which DA had initially been unable to supply, and also the 154 rifles which had been eliminated from the original requirement at DA request. However, there is no documentation to support these rifle issues.

<sup>36/</sup>There were two minor additional changes to the Fort Polk requirement which contributed to the shortage of 2,556 rifles.

was still a shortage of 85 at various CONUS stations for the POR mission.

As Vietnam requirements for infantrymen rose, DA decided in August 1966 to convert the standard infantry AIT at Fort Jackson, South Carolina, to Vietnam-oriented AIT. Fort Jackson was issued 540 rifles and training was conducted by using these rifles as a pool.

USCWARC submitted an operational report of lessons learned in September 1966 for the quarter ending 30 July 1966 in which was stated:

Rifle Availability

The decision to change the types of individual weapons (M16) has compounded training problems because of lack of sufficient numbers of the weapon in the training base.

In October 1966 a second major expansion of Vietnam-oriented AIT at Fort Polk was ordered. Fort Polk requested only 267 rifles, based on the changed plan to equip every trainee with a rifle for only the first four weeks of AIT. These weeks of training included rifle marksmanship and gave the trainee four weeks of familiarity with the M16 rifle. Tactical training was conducted during the latter half of the nine-week cycle; the M14 rifle was used because of the requirement for blank ammunition. The Fort Polk request did not include a consideration of 300 U.S. Air Force M16 rifles which it had on hand. For this reason, DA denied the Fort Polk request for 267 rifles.

In November 1966, those infantry replacements for Vietnam coming from the training base were being trained at Fort Jackson, South Carolina,

Fort Polk, and Fort Gordon. The following extract from a USCONARC fact sheet of November 1966 shows the status of rifles for Vietnam-oriented advanced individual training.

Fort Jackson has 9 companies (227 men/Co) of specialized AIT now in cycle. Fort Jackson has advised Third US Army that 540 M16E1 rifles on hand are adequate to conduct the type of training they are doing now. Fort Jackson has not requested additional rifles, and therefore, there are none on requisition.

Fort Polk has 27 companies (227 men/Co) of specialized AIT now in cycle. Fort Polk has advised Fourth US Army that 3,053 M16/M16E1 rifles, including 138 used as floats, are sufficient to conduct the required training.

Fort Gordon has 9 companies (227 men/Co) of specialized AIT now in cycle. Fort Gordon has advised Third US Army that 2,547 M16/M16E1 rifles on hand are sufficient to conduct training.

Training centers advise that they do not require 1 M16 rifle for each individual during the entire training cycle because blank firing attachments and blank ammunition for M16/M16E1 rifles will not be available until 1968. The M14 rifle must be utilized during those phases of training which require firing of blank ammunition.

Since blank firing attachments and blank ammunition are not available, it is not appropriate that additional M16E1 rifles be issued at this time. When those items are available, action can be taken to issue additional M16E1 rifles.

DCSIT has advised DCSLOG that they are not aware of any additional requirements, DCSLOG plans no additional action at this time.

The first issue of 5.56mm blank ammunition to USCONARC occurred in November 1967.

The distribution of rifles vis-a-vis the training policy is difficult

to understand. Fort Gordon had almost five times as many rifles as Fort Jackson; yet both training centers had the same infantry advanced individual training mission, trainee input, and trainee load in Vietnam-oriented AIT. Fort Gordon received most of its rifles on the basis of issuing one per trainee, as did Fort Polk. DCSPER had validated the Fort Polk and Fort Gordon rifle issues at the request of DCSLOG and in coordination with CONARC. However, this policy obviously was not applied to Fort Jackson, which had only 540 rifles.

On 20 November 1966, USCONARC directed that "each AIT-Inf (RVN) trainee will have the M16 rifle in his possession from entry into AIT training until completion of the 9 week course." This created a requirement for 1,496 rifles at Fort Jackson and 3,076 rifles at Fort Polk; Fort Gordon had sufficient rifles on hand. On 30 November 1966, USCONARC DCSLOG stated that sufficient rifles were available to fill these two requirements and that the installations had been directed to submit requisitions for the rifles. When the requisitions were submitted, the requirements were revised upward. These rifles were furnished as follows:

	<u>Dec 66</u>	<u>Jan 67</u>	<u>Total</u>
Fort Jackson	1,395	997	2,392
Fort Polk	4,160		4,160

In December 1966, the rifle supply situation was still far from the desired objective. The Joint Chiefs of Staff had assumed authority

and control of allocation of rifles (and ammunition) in April 1966,<sup>37/</sup>  
Initial JCS J4 allocation was on 29 April 1966 and was keyed to production schedules. On 1 December 1966, a JCS memorandum stated:

An evaluation of the XM16E1 rifle situation reveals that stocks and planned production of this weapon are insufficient to satisfy the immediate requirements of both US and non-US forces. The indicated maximum production is 25,000 rifles per month, which will be reached in December 1966. This results in a requirement to stretch out or postpone deliveries to those non-US forces not actively engaged in combat operations in South Vietnam, while at the same time giving priority to the US and non-US forces actively engaged.

As a result of the memorandum, XM16E1 rifles were reallocated for the period November 1966 through June 1967.

Phase IV: December 1966 - February 1968

In December 1966, a major change occurred in the training requirement when DA directed that limited distribution of the XM16E1 rifle be extended to include all active Army units in or scheduled for deployment to Southeast Asia.

CONUS armies requested 1,739 rifles in February 1967 in order to satisfy the expanded load of personnel to be trained. Most of the rifles were issued in March, the remainder in April and May.

The next requirement for rifles arose in connection with the training of packet personnel from June to September 1967 at Fort Lewis, Washington. Emphasis at USCONARC on the training of these packets, en route to Vietnam, was such that an 18-hour course was prescribed.

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<sup>37/</sup> Msg, DA to CINCUSARPAC, 16 May 1966, sub: JCS Allocation of Rifle XM16E1 and Cartridge 5.56mm.

Initially, 360 rifles were required. It was learned, however, that some of the personnel to be trained were recent graduates of Vietnam-oriented AIT. These soldiers were considered adequately trained and were consequently excused from rifle training as a part of the packet training conducted at Fort Lewis. Thus, the rifle requirement was reduced to 200. However, the Army had no rifles in depots or available from procurement to satisfy the requirement. USCONARC finally directed Third Army and Fourth Army each to provide 100 rifles to Fort Lewis, but not to take these rifles from either training centers or schools. The rifles were to be returned to the place of origin after Fort Lewis had finished the packet training.

In May 1967, as Vietnam requirements for infantrymen continued to increase, DA decided to convert the standard infantry AIT at Fort McClellan, Alabama, to Vietnam-oriented AIT. Fort McClellan requested 2,300 rifles (one per trainee) with issues to be made at the rate of 360 rifles a week until 2,300 had been issued. Issues began in June and training began in July 1967.

Effective August 1967, the third expansion of Vietnam-oriented AIT at Fort Polk was initiated. Fort Polk requested 2,300 rifles; as of 31 July, it had received 1,790 rifles, and still required 510 rifles. Fort McClellan required 151 of 2,300. An additional 110 rifles were tentatively scheduled for delivery to Fort McClellan in October 1967 for use as a maintenance float. The required 510 and 151 were supplied

in August 1967.

In September 1967, USCONARC requested the following quantities of rifles from DA: Fort Benning, Infantry School, 450; Fort Benning, Infantry Noncommissioned Officer (NCO) Candidate Course, 2,800; Fort Knox, Armor Training Center, 48.

In October 1967, DA decided to exchange M16A1 rifles from new production for old rifles in the 101st Airborne Division. Department of the Army directed U.S. Army Munitions Command (USAMUCOM) to provide the 101st Division with 9,765 rifles. USCONARC was permitted to apply the older serviceable rifles released by this exchange against training requirements. Therefore, on 22 November 1967, USCONARC provided the following rifles:

Fort Benning: 1,591 for Infantry NCO Candidate Course. These rifles, plus some previously redistributed by USCONARC, due to change in status of certain units, completed the requirement for the Infantry NCO Candidate Course, which had a total requirement of 2,800 rifles.

Fort Sam Houston: 60 for the Medical Training Center for POR training.

Fort Bragg: 245 for 3d Special Forces Group (Airborne)

Fort Bragg: 20 for POR training.

Fort Sill: 5 for POR training.

FY 1968 rifle requirements for training were estimated by USCONARC on 3 August 1967 to be 16,190. (Table 3-2)

On 7 February 1968, DCSPER provided the Chief of Staff, Army with three alternative plans for the conduct of M16 rifle training during basic combat training (BCT). The recommended alternative required

5,268 rifles and was preferred because it could be immediately supported. The plan recommended for eventual adoption will require approximately 130,000 rifles. The recommended alternative was approved on 8 February 1968; also approved for eventual adoption was complete conversion from the M14 to the M16 rifle in basic combat training.

The Chief of Staff also approved a plan for converting the remainder of the standard infantry AIT to Vietnam-oriented infantry AIT.

Finally, a plan is pending to require oversea commands to provide M16 rifle training to personnel transferred to Vietnam from the oversea commands.

Because of these three recent training actions, the training base rifle requirements will not be satisfied until the second quarter of 1969.

Table 3-2 — USCONARC

FY 1968 REQUIREMENT FOR RIFLES FOR TRAINING BASE

2,600	- Infantry NCO Candidate course
450	- Ranger School
48	- Increased AIT, Fort Knox
75	- Armor NCO Candidate Course
750	- Artillery NCO Candidate Course
110	- Maintenance float, Fort McClellan ATC
<u>8,000</u>	- Increased MOS skill level training (80-MOS package)
12,033	- Subtotal
2,567	- Contingency for possible new requirements and rounded out sufficiently by USCONARC to subtotal 14,600
<u>14,600</u>	- Subtotal as provided by USCONARC
1,590	- Contingency for possible new requirements and rounded out sufficiently by DA to total 16,190
<u>16,190</u>	- Total

### POM and Unit Training Requirements

#### Phase I: November 1963 - February 1965, Pre-Vietnam Period

Sufficient rifles were available to conduct training during Phase I because training was a unit responsibility and every man whose basic weapon was the rifle was issued an M16 in those units authorized the weapon.

#### Phase II: March 1965 - December 1965

The first three units to arrive in Vietnam had been issued the M16 rifle in CONUS and Okinawa prior to deployment and were a part of the original plan under which 85,000 rifles were procured for air-mobile, airborne, and special forces. The fourth unit, the 1st Infantry Division, deployed to Vietnam with the M14 rifle. It was partially equipped (infantry and mechanized battalions only) in Vietnam with the M16 rifle from January to March 1966, not as part of the 85,000 rifle plan but as a result of the request made by COMUSMACV on 6 December 1965.

#### Phase III: December 1965 - December 1966

In December 1965, in the wake of the COMUSMACV request for rifles, USARPAC requested M16 rifle training for deploying infantry battalions and squads of reconnaissance platoons. This established the requirement for preparation for oversea movement of units (POM) training. From December 1965, when the initial request for rifles for units in Vietnam was made, until May 1966, the policy was to issue

rifles to units already in the country. The 25th Infantry Division arrived during the period January to April 1966 and issue was made partly in Hawaii and partly in Vietnam. On 21 January 1966, USCONARC indicated that there were only two units with infantry elements tentatively scheduled for deployment to Vietnam: the 4th Infantry Division and the 11th Armored Cavalry Regiment. Although there was some uncertainty as to which units were to be deployed to Vietnam during 1966, and whether or not these units were to be equipped with the M16 rifle prior to deployment, the requirement to conduct M16 POM training was definite. Therefore, on 1 February 1966 USCONARC notified the CONUS armies that "Actions with respect to units which may be deployed to RVN and who require M16 training will be treated on a case by case basis."

In May 1966, Department of the Army provided USARPAC with the Joint Chiefs of Staff allocations of rifles and ammunition. DA requested that USARPAC review its weapons densities and provide DA with the recommended phased input of rifles to USARPAC based on ammunition support availability. The DA policy was to deploy no weapons unless they could be supported within theater required supply rates; ammunition was critical and was the governing factor in deployment of the weapon. DA also suggested to USARPAC that "phased input should consider distribution in CONUS of rifles to units scheduled to deploy to Vietnam."

On 5 May 1966, COMUSMACV requested DA to issue rifles in CONUS to the 4th Infantry Division, 11th Armored Cavalry Regiment, 199th Infantry Brigade, and 9th Infantry Division on a phased monthly schedule. On 3 June, DA directed USAMC to distribute according to the COMUSMACV recommendations, with some revisions. DA had already issued 1,902 rifles to the 2d Brigade Force, 4th Infantry Division, on 24 May 1966. On 15 June 1966, USARV explained the basis of issue as follows: (1) divisional infantry and mechanized brigades; (2) separate infantry brigades; (3) armored cavalry regiment; and (4) selected combat support and security units. USARV desired issue of rifles to the first three in CONUS; issue of rifles to the fourth in Vietnam.

On 18 June 1966, USCONARC prepared a fact sheet on the status of distribution of rifles for deploying units stating in part:

COMUSMACV has notified DA which CONUS units are to receive XM16E1 rifles before deployment to RVN. The following allocations have been proposed by MACV and approved by DA:

<u>Unit</u>	<u>Quantity XM16E1</u>	<u>Date of Shipment</u>
2d Bde Force (4th Inf Div)	1,902	May
4th Inf Div (-)	3,832	June
11th ACR	2,148	June
199th Inf Bde	2,924	*As recommended by armies concerned
9th Inf Div	5,532	

\* Due to shortage of M16 ammunition XM16E1 rifles cannot be issued to these units until completion of unit training. Sufficient M16 ammunition has been set aside for both units to qualify selected personnel (infantry MOS)

on the M16 rifle (52 rounds per individual). Message has been sent to Third and Fifth Armies advising that above weapons are available but due to M16 ammunition shortage, M16 weapons should not be issued to troops until completion of unit training with M14 rifle. Message also requests both Armies to submit dates XM16E1 rifles are to be shipped from depots.

This fact sheet illustrates again that ammunition availability was the controlling factor in weapons distribution.

Rifles for the 4th Division and 11th Armored Cavalry Regiment were issued in May and June in time for M16 rifle training. Weapons for the 9th Division and 199th Brigade were issued by 23 November 1966 in time for M16 rifle training.

On 27 June 1966, USARV requested DA to replace M14 rifles with M16 rifles in the 196th Infantry Brigade prior to its deployment to Vietnam. The rifles were to be obtained by diverting from the 9th Infantry Division June issues and repaid from the USARV July allocation. This request constituted extremely short notice. The weapons arrive at Fort Devens, Massachusetts, 5 July and the 196th Brigade departed 15 July.

On 22 December 1966, DA informed USCONARC that all active Army units in SEA (later changed to USARV) or scheduled for deployment to USARV would be issued the M16 rifle. First priority for issue of the rifle was to all CONUS-based units scheduled for deployment to USARV with equipment readiness date of 1 January 1967, and thereafter.

Phase IV: December 1966 - February 1968

The 198th Brigade deployed in October 1967 and received weapons in May 1967. Due to modified table of organization and equipment (MTOE) changes, additional weapons were issued in September 1967. The 11th Brigade in Hawaii was issued M16 rifles in November 1967 in sufficient time to conduct training prior to deployment.

The 101st Airborne Division and the 3d Brigade, 82d Airborne Division, have been armed with the M16 since late 1964.

After December 1965, the issue of M16 rifles and 5.56mm ammunition were closely controlled by DA. Rifles were not immediately available for training purposes; in some cases, the lack of sufficient amounts of ammunition delayed the issue of rifles. The nonavailability of a blank firing adapter also contributed to delays in issuing rifles to units. After receiving rifles and ammunition, units had to complete the required minimum 8-hour POM training program which, in turn, was a product of an insufficiency of rifles and ammunition.

### C. Availability of Ammunition for Training

#### Phase I: November 1963 - February 1965

During this period, ammunition was provided to support the issue of M16 rifles to special forces and airborne units. Ample quantities of ball ammunition were available for training.<sup>38/</sup> In April 1964, USCONARC requested 18.5 million rounds of 5.56mm ammunition to establish unit basic loads and to support training. The full amount was allocated by USAMC in July 1964. Tracer ammunition was produced in small quantities and was used in Southeast Asia. Blank ammunition was not available.

On 24 November 1964, Department of the Army approved 5.56mm ball and tracer ammunition allowances<sup>39/</sup> to provide ammunition for Army Training Programs (ATP's), operational readiness training, and annual qualification firing. The basis of issue for 5.56mm ammunition was the same as that authorized for 7.62mm ammunition.

On 25 November 1964, Third Army requested information from USCONARC on the availability of blank and tracer 5.56mm ammunition. With the exception of 123 rifles at Fort Knox, Fort Hood, Fort Lee,

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<sup>38</sup> Tracer ammunition was not produced in quantity until fiscal year 1965 when 42.8 million rounds were manufactured. Blank ammunition was not produced until July 1967 (limited production) and as of February 1968 was still not available in quantity. The first CONUS allocation of 5.56mm blank was received for training in November 1967 (200,000 rounds).

<sup>39</sup> For inclusion in TA 23-100.

and Aberdeen Proving Ground, Third Army had all the rifles in the continental United States. The Third Army message<sup>40/</sup> stated that information available to Third Army indicated that tracer ammunition would be available in six months and that blank ammunition would not be available until spring of 1966. It added, further, that lack of these types of ammunition would seriously delay training with the M16 rifle. Third Army requested authority to purchase blank ammunition from other than supply sources.<sup>41/</sup> CONARC replied:<sup>42/</sup>

Tracer is under development with anticipated type classification in January 1965. Deliveries of tracer are tentatively scheduled to start April 1965.

The blank round has not been type classified or safety certified. Therefore, availability cannot be determined at this time.

Commanders are not authorized to buy non-standard items from commercial sources unless approved by DA. Pending safety certification of blank round, it is not considered feasible to approach DA for approval of local purchase. Further, while the blank round is desirable in order to add realism to training exercises, it is considered that training can be conducted

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MSG, CG Third Army, to CG USCONARC, 25 Nov 64, sub: Availability of Blank and Tracer 5.56mm Ammunition.

41

Remington had produced blank ammunition.

42

Msg, CG USCONARC to CG Third Army, 7 Dec 64, sub: Availability of 5.56mm Ammunition.

effectively utilizing substitute items pending availability of blank round through normal supply channels. In this respect, DVC 7-12, Small Arms Gun Fire Simulator, M2 is available in Training Aids Centers, your Army Area and M14 rifles and 7.62mm blank ammunition may be drawn from supply to support training requirements.

Phase II: March 1965 - December 1965

Sufficient ball ammunition was available during this period for the various types of training conducted by units armed with the rifle, and for replacement training as well. Ammunition was required in significant quantities only in airborne, airmobile, and special forces units, and at the Fort Gordon Training Center. One million rounds of tracer ammunition were allocated to training during FY 1966; blank ammunition was not available.

In September 1965, the worldwide training requirements for 5.56mm ammunition for FY 1966 and 1967 averaged only 3.3 million rounds per month. The projections of assets, consumption, and production for these fiscal years were such that all requirements, including training, could be satisfied easily. In September 1965, three lines were in production--Remington Arms, Federal Cartridge, and Olin Mathieson. No additional lines were scheduled.

Phase III: December 1965 - December 1966

On 6 December 1965, COMUSMACV requested 170,000 M16 rifles. At this time, the rate of ammunition production was about 12 million rounds a month. USAMC estimated that new requirements would total

100 million rounds a month. DA began work to expand 5.56mm cartridge capacity through use of facilities at Lake City Army Ammunition Plant, Missouri, Twin Cities Army Ammunition Plant, Minnesota, and Badger Army Ammunition Plant, Wisconsin. It was, therefore, necessary to make the best possible use of every rifle and every round of ammunition to fill the COMUSMACV request and other requirements.

On 22 December 1965, DA informed USAMC that the U.S. Air Force would provide 10,635,000 rounds of 5.56mm ammunition to the Army for all purposes (not just for training) during the period December 1965-May 1966.

On 12 January 1966, DA asked USCONARC to develop a plan to provide M16 rifle training as requested by USARPAC on 31 December 1965. The DA message acknowledged the criticality of 5.56mm ammunition as follows:<sup>43/</sup>

In formulating necessary training plans it is essential that consideration be given but not be limited to the following:

- a. Weapons and ammunition for installations must be kept to the minimum consistent with the training requirement and with full recognition of the critical status of 5.56mm ammunition.
- b. Possible reduction in ammunition requirements for M16 training now being conducted.

On 17 January 1966, DA informed USCONARC and USAMC that M16 rifles would be withdrawn from the 3d, 6th, and 7th Special Forces,

<sup>43</sup>

Msg, DA to CG, USCONARC, 12 Jan 66, sub: M16 Rifle Training.

and that M16's would be replaced by M14's. The 5.56mm ammunition on hand to support the M16's would also be withdrawn for use in Vietnam. The M16's would be used to further reconstitute combat consumption stocks withdrawn for issue to COMUSMACV.

On 21 January 1966, USCONARC informed DA of its plan for M16 rifle training.<sup>44/</sup> Ammunition availability was an important factor in the development of the program. The CONARC stated in part: "The eight hour training course this command will prescribe involves 62 rounds of ammunition (for KD ranges) or 52 rounds (trainfire range), which according to estimated requirements can be supported with current ammunition availability."

On 1 February 1966, USCONARC directed CONUS army commanders to conduct M16 training and requested progress reports.

During the period 23 to 25 February 1966, the CONUS armies reported that they would be able to conduct M16 rifle training on receipt of rifles and ammunition and that instructions had been dispatched to subordinate installations within the armies.

In April 1966, the Joint Chiefs of Staff assumed authority for and control of allocation of all types of 5.56mm ammunition, except blank ammunition. Initial allocation was made 29 April 1966 and was keyed to the production schedules.

<sup>44</sup>

Msg, CG USCONARC to DA, 21 Jan 65, sub: M16 Rifle Training.

On 6 May 1966, DA informed USARPAC that no weapons would be deployed unless they could be supported within theater required supply rates.<sup>45/</sup> Actually, this was a restatement of existing policy. The criticality of ammunition was recognized twice in the message. USARPAC was asked to recommend the phased input of rifles based on ammunition support availability. USCONARC was asked to review the training requirement in light of planned ammunition allocation, and to make maximum adjustments within the austere allocation planned to assure mission accomplishment.

The criticality of ammunition was again identified by DA in a message on 4 June 1966 to USARPAC and CONARC which stated in part that the allocation of 5.56mm ammunition was the controlling factor in the distribution of the M16 rifle.

Ammunition was provided for training in CONUS based on the 8-hour, 62-round or 52-round program. Units deploying to Vietnam normally conducted unit training with the M14 rifle and switched to the M16 just prior to deployment. The M14 permitted the use of blank ammunition and the blank firing adaptors during unit training, the M16 did not.<sup>46/</sup>

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Msg, DA to CINCUSARPAC, 6 May 66, sub: JCS Allocation of Rifle XM16E1 and Cartridge 5.56mm.

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The impact on training of the 9th Infantry Division and the 199th Infantry Brigade caused by the shortage of ammunition is discussed on page 3-114.

During the fourth quarter of FY-1966 (April-June 1966), the USCONARC stated requirement was 9.290 million rounds; USCONARC was allocated 7.982 million rounds, or 86 percent of the requirement.

On 8 July 1966, a CONARC fact sheet stated: "As of 30 June (1966), final progress reports received from each Army indicated that all Army installations have completed preparation and have on hand the necessary M16 rifles and ammunition to conduct required M16 training."

On 31 August 1966, the Joint Chiefs of Staff granted authority to CINCPAC to allocate 28,000 rounds of 5.56mm ammunition to the Philippine Navy. Four days later, USARV reported that an analysis of ammunition had disclosed that seven key items of ammunition would decrease to zero balance. One of these items was 5.56mm ball ammunition, which had a zero balance date of January 1967. A similar analysis of 5.56mm tracer revealed that the quantity on hand in the theater during the period October 1966 to June 1967 would be about 4.0 million rounds, or 27.2 million less than the USARV June 1967 stockage requirements. The USARV message further stated: "It should be noted that the 5.56mm ball, 81mm HE, and 105mm HE are the backbone items for current operations in this theater. To reduce stockage of these items to an unacceptable low level with present significant problems to combat operations this theater." This message led to the establishment of the Department of the Army Allocation Committee, Ammunition (DAACA).

On 7 November 1966, JCS J4 stated that the actual production of 5.56mm had not met planned production as indicated:

<u>1966</u>	<u>Planned</u>	<u>Actual</u>
June	33.8	17.9
July	43.8	13.0
August	60.8	19.2
September	60.2	29.6

The primary reason for slippages was difficulty in meeting quality assurance standards of primer sensitivity.

Phase IV: December 1966 - February 1968

During this period, USCONARC received monthly ammunition allocations equal to or greater than the CONARC stated requirements. In July 1967, the task of allocating 5.56mm ammunition was transferred from the Joint Chiefs of Staff to the Department of the Army.

Blank Ammunition

The history of the 5.56mm blank round began with the award of a contract to Remington for production of a prototype (XM200) on 24 November 1964. At the in-process review of the blank round and BFA conducted 12 February 1968, the decision was made to submit the blank round to the USAMC Technical Committee for type classification on February 1968. An audit trail of the blank round is available in the files of the Rifle Review Panel.

D. Development of Training Literature and  
Other Training Material

History

Approximately forty items of training literature and training material have been devoted wholly or in part to the M16 rifle.<sup>47/</sup> Some items have been superseded and some have been modified as further experience with the rifle dictated. The basic Department of Army publications on the M16 rifle have been the field manual, FM 23-9, and the technical manual, TM 9-1005-249-14.

The first training manual, produced by Colt's Inc. in February 1960 and titled "Parts, Accessories, and Armorer's Kit," was published "for the information and guidance of ordnance personnel whose duties involve the use, maintenance, and repair of the caliber .223 Basic Infantry Weapon, AR15. Disassembly, assembly, cleaning, and minor repairs may be undertaken by anybody." Colt's Inc. stated that this manual was neither packaged with the rifle nor distributed to the Army. From statements contained in the manual, the reader could easily conclude that the weapon is almost trouble free and extremely simple to maintain. Further, the manual implies that the soldier may drop his empty magazine from the rifle and throw it away. The following are selected extracts from Colt's manual:

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<sup>47</sup> For identification and date of these items, see Inclosure 1.

The Colt AR-15 features a quick loading principle embodying the use of a very lightweight preloaded magazine which under combat conditions is thrown away.

As soon as the magazine is emptied the release button is pushed with the finger and the empty magazine drops.

Corrosion resistant materials facilitate the assembly and interchangeability of parts and reduce the service and maintenance of the Colt AR-15 to an absolute minimum. Firing of the Colt AR-15 with complete absence of lubricants in a chemically cleaned condition has in every country where this test has taken place resulted in a performance far exceeding any requirements.

The Colt AR-15 rifle will fire longer without cleaning or oiling than any other known rifle.

The sand test is one that stops many of the world's best weapons, yet the Colt AR-15 has gone through the most severe of these tests without malfunction.

None of the various adverse condition tests including sand have left any ill effects on this weapon. Performance in mud is probably the most difficult of all adverse conditions, the close fitting dust cover makes it possible for the Colt AR-15 to out perform all other automatic weapons in this test.

An occasional simple cleaning will keep the weapon functioning indefinitely. Working parts can be cleaned by wiping with a cloth. The simplicity of field cleaning makes it possible to quickly and easily train a recruit in minimum time.<sup>48/</sup>

During 1963 and the first two or three months of 1964, Colt's Inc. packaged a contractor's operation manual with rifles issued

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<sup>48</sup> In March 1968, the Department of the Army dispatched a message to all commands, stating that the Colt publication was not authorized for military use and that copies on hand would be destroyed.

to the Air Force. This manual was published in June 1962 in 10,000 copies but was not packaged with the subsequent Army purchases (November 1963 and later); a few copies were sent to the Test and Evaluation Command. At the request of the Army, Colt's had actually prepared for the issue of this manual with the first Army purchase of 85,000 rifles, but the Army told Colt's that it had developed its own manual and asked Colt's not to issue the contractor manual. The contractor's operation manual contained statements similar to those quoted above from the armorer's kit manual.

Colt's also developed sometime during 1963 or 1964 a contractor's sales brochure, containing statements similar to those quoted above. According to Colt's, this brochure was not distributed to the Army. Colt's Inc. has stated that it never received a request from the Army to package any sort of training or equipment literature in connection with the M16 rifle. Colt's did package, however, at the request of the Army, approximately 19,000 technical manuals with the XM148 grenade launchers that were shipped to Vietnam. The manual for the XM148 grenade launcher is also the manual for the M16 rifle. These manuals were shipped in October 1966.<sup>49/</sup>

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<sup>49</sup> During the course of this review of the M16 rifle program evidence of distribution of Colt manuals was found in a report of a visit to Fort Lee, and in the report of the OSD Field Survey in Vietnam. Although there were undoubtedly some manuals which found their way into the Army during the first rifle distributions, wholesale distribution of Colt manuals cannot be documented. Available evidence indicates that the contrary was true.

USAMC is charged with the maintenance support of the M16 rifle and is responsible for "insuring that operators' manuals are packaged with and accompany the equipment when issued to the user" and for "insuring that organizational maintenance manuals are issued prior to, or concurrently with, equipment delivery."<sup>50/</sup> However, a letter from USAWECOM to the USACDC Maintenance Agency in August 1967 pointed out that USAWECOM, in its interpretation of the regulations, had developed a policy which did not provide for an operators' manual to be packaged with the small arms family of weapons such as the M16, M14, and M1 rifle, the M1911A1 pistol, and the caliber .38 revolver. USAWECOM stated its reasons for adopting this policy and requested that the USACDC Maintenance Agency review the policy as follows:

The requirement for a -10 manual as a Basic Issue Item imposes the responsibility on the individual soldier to have a manual available at all times, and presentable for all inspections. It should be noted that any commander may provide a manual for each soldier by proper utilization of the pinpoint distribution system. Using troops have not indicated a need for individual manuals as BILI by comment to the Headquarters.

Based on questions posed by a project manager, the above stated policy is presently being reappraised. Your assistance therefore is requested, as the representative of the user, to review the above stated policy, and inform this Headquarters whether the present policy

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<sup>50</sup> These requirements are embodied in Change 4, 4 July 1964, to AR 310-3, and are reiterated in AR 750-6, 21 August 1964.

should be retained, or a new policy adopted, which will establish the -10 (operators) manual as a Basic Issue Item for such items as rifles, pistols, and revolvers, and thereby require one copy of each to be packed with each individual weapon.

The USACDC Maintenance Agency passed the action to the USACDC Infantry Agency with the following comments:

This agency recommends that the present policy be retained for the following reasons:

It is felt that a policy requiring issue of an operator's manual with each weapon would increase the overall cost of each weapon by 10 to 20 percent.

In most cases the soldier receives detailed training on the operation, care, and cleaning of the weapon with which he is armed. This would also be true if the basic weapon of an entire unit were changed. In those few cases where a soldier may be issued a weapon, unfamiliar to him, he has access to an operator's manual for that weapon through the unit armorer.

The present policy for operator's manuals requires that the manual be stowed in or on the respective item of equipment. Of course, in the case of small arms this is impossible. The individual soldier would have to carry it on his person, which this agency feels would be an unnecessary harassment of the infantryman.

The Infantry Agency concurred and USAWECOM was notified. Therefore, the provisions of AR 310-3 and AR 750-6 were not executed. No plans were made for substitute provisions that would have achieved the purpose of getting manuals to the troops without putting one in the hands of each soldier. Apparently, DA DCSLOG was not informed of the USAWECOM interpretation and thus was not

given the opportunity to rule on the matter, change the Army regulation, or do whatever was necessary to get maintenance doctrine to the troops in manual or other form without undue expense to the Army and inconvenience to the soldier.

As early as April 1963, USAIS had begun to gather data for the development of training literature, resident instruction and marksmanship courses for the M16 rifle. At that time, a representative of the Small Arms Committee of USAIS visited Aberdeen Proving Ground and concluded that the "AR15 will fit into the present marksmanship training course for the M1 and M14 rifles."

The U.S. Air Force published on 30 August 1963 Air Force Manual (AFM) 50-12. This manual included descriptive data and information on operations, functioning, care and cleaning, assembly and disassembly, stoppages and immediate action, and sight and adjustment. The manual discussed these subjects adequately for operator use. To a certain extent, it continued the theme of easy maintenance with these statements:

The extensive use of light, corrosion resistant alloys and plastics reduces weight and minimizes cleaning, lubrication, and maintenance requirements.

The ejection port cover and receiver completely enclose the bolt, giving maximum protection against sand and dirt which could cause malfunctions and excessive wear.

All of these features permit this weapon to function under all climatic conditions.

Moreover, the manual neglected to list the malfunction "failure to extract," although it did list seven other malfunctions. AFM 50-12 also cautioned the operator to wait five seconds before applying immediate action to a stoppage.

The Air Force published on 31 August 1963 (one day after AFM 50-12) a technical manual (order) TO 11W3-5-5-1. This manual included much of the material contained in AFM 50-12, but it was in greater detail and included such subjects as repair operations, inspection procedures, detailed disassembly, tools and replacement parts, and maintenance levels and allowances. TO 11W3-5-5-1 was based to some degree on Colt's contractor's operation manual.

Army efforts at publishing the first two basic M16 rifle documents, a training document and a technical document, were being accomplished by USAIS and USAWECOM, respectively, in October 1963. In November 1963, the DA project officer noticed differences between information contained in the draft training circular and the draft technical manual. Consequently, representatives from USAIS and USAWECOM conferred from 24 to 27 November 1963 to resolve these differences. At this time it was agreed that any additional information on the weapon would be sent to USAIS by USAWECOM.

The first Army training publication on the M16 rifle was Training Circular 23-8, dated 13 April 1964, and titled "Rifle,

5.56mm, M16." This circular provided interim guidance (until a field manual could be produced) for giving instruction on the rifle 5.56mm M16. The circular was written by USAIS which has the responsibility for preparing training literature in support of small arms. In this circular, as in all Army manuals, is a statement that users are encouraged to submit changes or comments to the appropriate addressee, in this case, Commandant, USAIS. The circular included information on rifle characteristics, disassembly, assembly, operation and functioning, and preparatory marksmanship training. Although the Air Force manual and the technical order had care and cleaning instructions in it, the Army circular contained only this statement on care and cleaning: "The rifleman will use care and cleaning procedures standard to all small arms. See FM 23-8 for details of care and cleaning."

FM 23-8 is the field manual for the M14 rifle; the version being used in 1964 had been published in 1959. Although this manual described some cleaning techniques applicable to the M16 rifle, it also described some procedures which have never been authorized for the M16. For example, the manual declares, "Hot, soapy water or plain hot water is a substitute for bore cleaner." The manual authorized the use of various lubricants and grease, and established SAE 10 engine oil or castor oil as a field expedient under combat conditions. Disassembly of the magazine and

removal of the extractor from the bolt were not discussed in Training Circular 23-8. Disassembly of the lower receiver group by the soldier was authorized, although the Air Force manual did not provide the same authorization for the airman. The circular contained the definition of a stoppage but offered no description of the types of stoppages (or malfunctions), probable causes, and remedies, although this information was available in the Air Force manual and the technical order. The user was cautioned to wait five seconds before applying immediate action to a stoppage. Ammunition care was not discussed nor were there any preventive maintenance instructions in the circular. Semiautomatic and automatic courses of fire were prescribed by referring to FM 23-71, "Rifle Marksmanship." This was a logical and feasible course of action to adopt for M16 rifle marksmanship.

The first Army equipment publication on the M16 rifle was TM 9-1005-249-14, published jointly by the Army, Navy, and Air Force on 15 June 1964, two months after Army Training Circular 23-8. In the U.S. Air Force, it replaced TO 11W3-5-5-1. Distributed throughout the Army, it provided detailed instructions on all aspects of operation and maintenance of the M16 and covered preventive maintenance checks and services. It did not authorize the user to disassemble the magazine or to remove the extractor. It

did authorize disassembly of the lower receiver group. It treated malfunctions (trouble-shooting procedures) but did not mention failure to extract. The manual cautioned the operator to wait 10 seconds before applying immediate action. Ammunition care was explained, and the care and cleaning of the rifle and ammunition were discussed in detail. Five changes have been published to TM 9-1005-249-14. Change 3, dated 1 May 1965, was significant because it canceled authority for the user or the armorer to disassemble the lower receiver group. This authority was provided at field maintenance level.<sup>54/</sup> The change was also significant because it provided more detail on care and cleaning. Previously, the manual had cautioned, "Lower receiver parts should not be removed except for dirty condition which may cause malfunction."

FM 23-9 was published 25 January 1965 and superseded TC 23-8. This manual contained material on disassembly, assembly, operation, functioning, and care and cleaning, and some preparatory marksmanship instructions. Care and cleaning instructions were very similar to those contained in TM 9-1005-249-14. Other than a definition of the term stoppage, reduction of stoppages was not discussed, but the manual did state that immediate action would be

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<sup>51</sup> These lower receiver parts are the hammer, hammer pin, sear pin, sear, selector lever, trigger spring, disconnect, and disconnect spring.

applied and went on to explain how. Magazine disassembly and care were not explained, nor was ammunition care or preventive maintenance. Previous instructions in TC 23-8 to wait five seconds were not repeated. Courses of fire for the M16 rifle remained unchanged. FM 23-9 continued to authorize the rifleman to disassemble the lower receiver group.

In May 1965, Change 3 to TM 9-1005-249-14 canceled authority to disassemble the lower receiver group. FM 23-9 was not changed. Therefore, from 1 May 1965 until 12 July 1966, when the "new" field manual 23-9 was published, conflicting instructions were contained in the field manual and the technical manual about the parts authorized for disassembly by the user. It is significant that the report of the Office of the Secretary of Defense field survey in Vietnam stated: "In addition, we find that armorers and small arms repairmen almost universally reported that some individuals armed with the M16 rifle were performing unauthorized disassembly during which they lost or damaged or improperly assembled parts. This is particularly applicable to the lower receiver assembly."

The magazine, P.S. (Preventive Service) Monthly, is given initial distribution by the as-need-by-user pinpoint method, and initial distribution is currently about 181,000 copies. P.S. Monthly Number 150, May 1965 was the first issue to contain

information on the M16 rifle. Altogether, nine issues of P.S. Monthly have contained information on M16 rifle supply and maintenance matters. These magazines are available in the files of the rifle review panel. P.S. Monthly is a valuable periodical if used, because changes in maintenance and supply matters normally appear in the magazine long before the field or technical manual is changed.

On 14 January 1966, USCONARC asked DA to program and produce two graphic training aids (GTA) for mechanical training with the M16 rifle. This request was an immediate reaction to the DA message of 12 January 1966, which had asked CONARC to develop a training plan — a message that had stemmed in turn from the 31 December 1965 USARPAC message requesting M16 rifle training. These Army training aids were to become GTA 7-1-14 and GTA 9-6-34.<sup>52/</sup>

Training Film (TF) 9-3663, titled "Rifle, 5.56mm, XM16E1 — Operation and Cycle of Functioning," was initially distributed in May 1966 to all Army audio visual support centers in CONUS and overseas; 210 prints were sent out, 12 of which went to Vietnam. This film describes characteristics of the weapon, loading, firing, and unloading, and gives a detailed explanation of functioning.

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<sup>52</sup> See pages 3-141 and 3-143.

It does not, however, contain material on other parts of mechanical training, for example, care and cleaning, assembly and disassembly, magazine and ammunition maintenance, and lubrication. Although complete statistics on the use of the film are not available, for the six-month period ending 31 March 1967, 1,051 showings were conducted by the Army all over the world. USARV reported to the Army Pictorial Center that in the six-month period ending 29 September 1967, the training film had been shown a total of 29 times (using seven copies). Although the film had been in the USCONARC FY 1965 training film program, production was delayed because DA challenged the need for the film. The script was approved 4 August 1965, some subsequent changes were made, and final approval was granted by DA in February 1966.

FM 23-9, dated 25 January 1965, was superseded by FM 23-9, dated 12 July 1966. This manual provided expanded instructions in mechanical training, marksmanship training, sight adjustment, and battlesight zero. Initial distribution, made in August 1966, consisted of 15,800 copies and was based on a formula tailored by the USAIS to insure that the manual was mailed to units equipped with the M16 rifle. From August 1966 to February 1968, approximately 41,500 additional copies have been sent out as a result of requisitions submitted by units. In response to an urgent request from the 1st Marine Division to the Army, 500 copies were also

mailed to that division on 10 November 1966. This issue of FM 23-9 has had one change. Initial distribution of 29,000 copies of Change 1 was made in January 1968 by the pinpoint method. The July 1966 edition of the manual contained more detailed instructions on weapon care and cleaning than were contained in the January 1965 field manual. Also, ammunition care was explained and immediate action was described in more detail. No information on how to reduce stoppages and malfunctions was included, nor were any instructions given on disassembly and maintenance of the magazine. Preventive maintenance checks and services were discussed, and instructions in preparatory marksmanship training and battlesight zeroing procedures were expanded. Disassembly of the lower receiver group was no longer authorized.

TM 9-1005-249-14, dated 15 June 1964, with its five changes was superseded by TM 9-1005-249-14, dated 1 August 1966. This manual was published less than one month after FM 23-9 and was given initial distribution of 6,017 copies during October 1966. On 13 October 1966, an additional 500 copies were sent to the 701st Maintenance Battalion, 1st Infantry Division, in Vietnam at the request of that unit. Also in October 1966, 19,236 copies were sent to Colt's Inc. for packaging with XM148 grenade launchers en route to Vietnam. On 17 November 1966, 500 copies were sent

to Fort Riley, Kansas, in response to an emergency requisition.<sup>53/</sup> All together, 25,000 copies of the manual have been distributed. This figure includes initial distribution but does not include the 19,236 sent to Colt's for packaging with the XM148 grenade launcher. This manual was the first publication to illustrate and discuss the use of the chamber brush and to explain the procedures for cleaning the chamber; it also authorized removal of the extractor from the bolt by the user.<sup>54/</sup> The manual retained the precaution of waiting 10 seconds before application of immediate action, even though the field manual which had been published the month before had deleted this precaution.<sup>55/</sup> Care and cleaning procedures were further elaborated from instructions contained in literature previously published and those procedures closely approximate currently prescribed care and cleaning procedures. Preventive maintenance checks and services were included. Trouble-shooting

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<sup>53</sup> It is assumed that these were for the 9th Infantry Division.

<sup>54</sup> A recommendation to allow the user to remove the extractor had been made by the 82d Airborne Division representative to representatives of Springfield Armory and the Weapons Command 31 August 1965 at a meeting, the purpose of which was to discuss improvements in the design of the M16 rifle sighting system.

<sup>55</sup> The conflict between the FM and TM was resolved by Headquarters, USCONARC, and Headquarters, USAMC October 1967; however, a conflict in literature will remain until publication of Change 5 to the TM.

information was set forth but nothing was said about failure to extract. The soldier was still not authorized to disassemble the magazine.

Four changes to TM 9-1005-249-14 have been distributed and a fifth change is being prepared. Change 2, 1 August 1967, is significant because it (1) pictured the new cleaning rod with folding handle; (2) required the use of LSA MIL-L-46000A as the lubricant for the M16 rifle; and (3) explained the danger of water in the barrel and procedures for draining the water. This last information had been disseminated first within CONUS by message on January 1967; the danger of water in the barrel was recognized in 1958 during rifle tests conducted by the United States Army Infantry Board. Change 2 is not clear as to whether or not the user may disassemble the magazine.

GTA 7-1-14, dated September 1966, was initially distributed to the Army in November 1966; a total of 1,555 copies were distributed, 40 copies going to Vietnam. This graphic aid consisted of a series of illustrated charts showing the disassembly of the rifle. The charts also described immediate action procedures and offered a few care and cleaning instructions. The training aid was originally developed and distributed in the form of VU-graph transparencies in February 1966.

USARV produced and distributed Combat Lessons Bulletin 9,

dated 28 October 1966. This bulletin itemized and discussed the seven points below in connection with the M16 rifle and was a direct outcome of the investigation by USAWECOM weapons specialists which, in turn, was a result of reports of numerous malfunctions of the M16 rifle in Vietnam.

1. Soldiers were not using proper cleaning and lubrication techniques.

2. Some weapons had worn parts.

3. Magazines and ammunition were not being kept clean.

4. Users were inserting more than 20 rounds into the magazine.

5. The chamber of the rifle required a distinctly separate cleaning technique.

6. None of the combat units visited had received the new, smaller cleaning patch.

7. The 1st Cavalry Division was using a traveling "weapons clinic".

Combat Lessons Bulletin 9 was distributed to company level during the first week of November 1966. The III Marine Amphibious Force (MAF) was furnished 20 copies.

USARV made an initial distribution of USARV Pamphlet 750-5 in the amount of 72,600 copies on approximately 23 January 1967.

Of these, 2,000 went to III MAF in accordance with a request of 27 October 1966. An additional 91,035 were distributed approximately 16 May 1967. Of these, 5,000 copies were for III MAF. This pamphlet was in the format of a P.S. Monthly and contained valid and helpful care and cleaning information from previous issues of P.S. Monthly.

GTA 9-6-34, dated February 1967 was initially distributed Army-wide in June 1967 in the amount of 2,004 copies; 40 copies were sent to Vietnam. This aid consists of a series of charts which are used to teach the nomenclature of rifle parts, and to teach functioning (cycle of operation). It was originally developed and distributed in the form of VU-graph transparencies in February 1966.

USCONARC was also aware of the problems encountered in Vietnam with the rifle, primarily through a visit to Headquarters, USCONARC, by a representative of the Project Manager, Rifles, and through information provided USCONARC by DA. USCONARC, therefore, believed that a requirement existed for a training film on the proper care and cleaning of the M16 rifle. On 8 February 1967, USCONARC recommended to DA that such a film "is an urgent requirement and should be completed within a maximum of 90 days." The USCONARC letter stated, "A thorough investigation by U.S. Army Materiel Command weapons specialists in Vietnam after reports of numerous

malfunctions of the XM-16E1 rifle indicates that additional training and supervision of care, cleaning, and lubrication of the weapon, particularly at company, platoon, and squad level, is required." USCONARC was also influenced by USARV Combat Lessons Bulletin 9. The "picture plan" developed by USCONARC was to illustrate and point out lessons learned in Vietnam . . . ." The major teaching points of the film were to be these same points contained in Combat Lessons Bulletin 9. The film was to be shown in conjunction with TF 9-3663 (cycle of operation) to units and individuals prior to deployment to Vietnam.

The script was reviewed and approved by DA on 29 September. It was decided that a second care and cleaning training film would be produced; emphasis was to be placed on field expedients. This second film was to be produced in 60 days from 29 September. The script on field expedients was approved 15 November 1967. The first training film was approved on 27 November 1967 and released January 1968. Part II, field expedients, was approved by DA 31 January 1968 and the Army Pictorial Center was requested by DA to expedite printing and distribution of the film. The film was released in March 1968.

In May 1967, DA reviewed a number of documents in an attempt to clarify instructions issued on the lubrication of the M16. It was discovered that four documents contained either conflicting

instructions or errors of omission, a USAMC letter of April 1967, TM 9-1005-249-14, and articles from two issues of P.S. Monthly. DA directed USAMC to take certain corrective action to include the change to LSA MIL-L-46000A as the standard lubricant for use on M16 rifles.

"M16 Rifle Tips," a wallet-size card, was prepared and distributed by USARV beginning 28 June 1967. It contains user maintenance tips that were compiled as a result of extensive interviews with combat veterans departing Vietnam. This card is distributed by the replacement center to every individual soldier upon his arrival in Vietnam. It is not a complete description of care and cleaning procedures. This card states: "Clean your rifle every chance you get, 3-5 times a day will not be too often in some cases." An identical statement appeared in P.S. Monthly Number 181.

GTA 21-1-3, April 1967, was a wallet-size card, printed front and back with M16 rifle maintenance instructions, and was distributed in July 1967. Because it contained incorrect lubrication instructions, a corrected copy dated August 1967 was issued in October 1967. This card had been requested by USCONARC as a result of the visit by the USAWECOM representative. Each company size unit in Vietnam having an account with the AG Publications Center in Baltimore was mailed 150 copies of the April card and the August card. In addition, 20,000 copies were provided to U.S.

Army, Japan for distribution to units in Vietnam upon their request. This card contains excellent cleaning and lubrication instructions although it is not all-inclusive. The card also contains the statement, "Under bad weather or operational conditions certain key parts of your rifle and the ammunition may actually need care and cleaning several times a day".

USARV distributed in November 1967 a second wallet-size card, titled "M16 PM Indicators". This card was designed as a guide for officers and NCO's in inspecting the M16 rifle. It was distributed down to and including the squad leaders.

USARV made the first distribution of USARV Pamphlet 750-30 in November 1967. Initial distribution, made on the basis of one to each soldier, was in 225,000 copies and included troops of New Zealand, Australia, and the Philippines. Subsequent distribution was scheduled to be 250,000 copies of the English version and additional copies in Vietnamese, Thai, and Korean. This pamphlet was in the format of P.S. Monthly magazine and contained the most thorough, accurate, and detailed instructions on care and cleaning which had been printed up to that time. The pamphlet was an update of USARV Pamphlet 750-5 and contained many techniques which had been published in previous issues of P.S. Monthly magazine; accompanying photographs to illustrate the written text made the pamphlet easy to read and understand. Preventive maintenance of

the rifle, the magazine, and the ammunition were included in this document. The DA M16 Rifle Review Panel, during its survey in Vietnam, January-February 1968, found this pamphlet at the division replacement training centers.

Training Film 21-3907 titled "Rifle M16A1 Care, Cleaning, and Lubrication, Part I", was first distributed in 250 prints to all audio visual support centers Army-wide in January 1968; 12 prints went to Vietnam. This film is a thorough and detailed demonstration of care and cleaning of the M16 rifle. It also explains the most important aspects of care and cleaning so that the rifle can still be maintained even though time and the situation temporarily prevent a thorough and detailed cleaning. A second film, TF21-3908, on care and cleaning was distributed in March 1968. The basic title was the same, but to it was added "Part II Expedients". This film explained care and cleaning procedures to be followed under the worst combat and environmental conditions.

Change 1 to FM 23-9 was first distributed in February 1968 in 29,000 copies. This change authorized and described the removal of the extractor for cleaning, although there is no accompanying photograph. It also discussed disassembly and care of the magazine, contained detailed rifle maintenance instructions, and provided a troubleshooting guide to stoppages and their remedies. The change explained the problem of water in the barrel and cautioned against

firing excessive amounts of tracer ammunition. No instructions were given for cleaning the barrel locking lugs. The change included this statement,

Under bad weather conditions certain key parts of the rifle and ammunition may need care and cleaning several times a day.

There have been a number of miscellaneous publications and some material directed wholly or in part to M16 rifle training, supply, and maintenance. For example, armed forces radio announcements are made in Vietnam on some aspects of M16 rifle maintenance, often by famous personalities of the entertainment world. Many posters on M16 rifle maintenance have been distributed in Vietnam. USARV headquarters periodically publishes a USARV maintenance information summary sheet that is distributed to include company level. Units themselves write local regulations, SOP's, and maintenance procedures such as the monthly maintenance letter published by the direct support maintenance battalion of the 1st Cavalry Division, and M16 rifle maintenance tips for inspectors produced at the U.S. Army Armor School.

At least six television tapes have been locally produced by Schools within the USCONARC television network. Four tapes were produced by the Quartermaster School during 1966 to aid in armorer instruction. The Special Warfare School produced a TV tape in 1965, covering most of the subjects inherent to mechanical training.

The Infantry School made a tape in 1964 which consisted of a demonstration of the rifle's hitting power and effectiveness.

The Blank Firing Adapter (BFA)

The history of the blank firing adapter began on 5 December 1963 when the Infantry School informed USCONARC that a training requirement existed for the BFA. The Remington BFA was developed although an Enfield model BFA was also tested by USAWECOM at the request of the Commandant, USAIS. USAWECOM found that the Enfield device was superior to the Remington model but evidently the Project Manager, Rifles was not convinced of the validity of the test of the two BFA's. This doubt, and the delay in negotiating an international agreement and procuring the BFA, caused the Project Manager, Rifles to continue development of the Remington Model BFA. An audit trail of the development of the BFA is available in the files of the rifle review panel.

Coordination and Distribution of Publications

Coordination of publications with "all interested agencies" is required by AR 310-3 and is accomplished by the agency which has the responsibility for the preparation of the publication. This agency is also responsible for the correlation of proposed publications with existing related publications to eliminate conflicting instructions by simultaneous preparation of recommended changes to material affected by the proposed publication.

AMC Regulation 310-28, dated 27 September 1967, supplements AR 310-3 and prescribes policy and responsibilities for the coordination of proposed equipment publications.<sup>56/</sup> This regulation requires USAMC agencies to provide a minimum of 30 days to Army user elements to review all equipment publication manuscripts and provide comments. The 30-day minimum applies to accelerated development cycle items. Included in the regulation are formulas for distribution depending on subject material, and user elements address list for USCONARC and USACDC.

USCONARC Regulation 310-3, dated 4 February 1963, supplements AR 310-3 and establishes policies and procedures for the preparation, processing, and approval of Department of the Army official training literature. The USCONARC regulation states,

Coordination and review of manuscripts will be in accordance with AR 310-3, except that USCONARC will review selected initial manuscripts.

The USAMC regulation provides detailed instructions as to "what" will be coordinated with "whom". The USCONARC regulation does not do these two things. For example, the USAMC regulation requires that small arms equipment publication manuscripts be forwarded to USAIS, among other agencies, for review. The USCONARC regulation, however, does not specifically require USAIS to coordinate the publication of a field manual on small arms with USAWECOM.

<sup>56</sup> Apparently there was no AMC regulation prior to September 1967.

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On 8 December 1964, USAIS forwarded the draft manuscript of FM 23-9 to The Adjutant General, DA. Draft manuscripts are accompanied by a DA Form 260, which contains certain administrative instructions including "Concurrences". The Form 260 contained the statement, "The draft manuscript was not reviewed by other agencies", and, in the block for concurrences is typed, "Considered unnecessary". This field manual superseded TC 23-8 and was the second training publication printed and distributed without troubleshooting instructions although these instructions were contained in the TM published in June 1964.

Again, in June 1966, the Form 260 which accompanied the revised FM 23-9 draft manuscript showed under concurrences, "Considered unnecessary". This was the third training document published without troubleshooting information.

The Form 260 for publication of the August 1966 edition of the technical manual shows no entry of any kind in the concurrences block. It cautioned the operator to wait 10 seconds before applying immediate action, although the July 1966 edition of the field manual, published one month before, had deleted the waiting period.

The preparation, coordination, approval, and distribution of military publications are regulated by AR 310-1 with Changes 1-9 and AR 310-3 with Changes 1-8. Until the pinpoint method of initial distribution was installed, a distribution formula was entered on

training literature and equipment publications. In every case, M16 rifle training literature and equipment publications contained an initial distribution formula down to and including company level, beginning in April 1964, when the first Army publication on the M16 was released. Automatic initial distribution of the publications was made to every company size unit whether it needed the publications or not. Material is distributed through the United States Postal Service. The Publications Center has never been without a supply of M16 rifle training publications.

In February 1966, for the first time, distribution of small arms equipment publications came under the pinpoint method of distribution. Thus, TM 9-1005-249-14, dated 1 August 1966, was distributed using this method. Doctrinal and training publications were integrated into the new system later in 1966, and periodicals such as the P.S. Monthly magazine also came under it in 1964.

The pinpoint method is based on the initial distribution of publications on an as-needed-by-the-user basis. It is a worldwide method for initial distribution and resupply of publications direct to organizations and units from a CONUS AG publications center. Units of the active Army down to and including company and detachment level establish publications accounts. Thereafter, initial distribution is automatic in the number of copies which the individual unit has specified.

Subsequent distribution is made whenever a requisition from a unit is received. The DA Adjutant General has no formal established system to check the current effectiveness of publications distribution. Spot checks should be sufficient if conducted on a regular basis and in enough detail to insure that the distribution and "subscription" systems are working.

### E. The New Equipment Training Program

The decision to procure M16 rifles during FY 1964 for Army use was made 13 February 1963. On 6 March 1963, the Commanding General, U.S. Army Materiel Command, appointed a project manager. On 24 April 1963, the Project Manager informed the Personnel and Training Directorate of USAWECOM that New Equipment Training (NET) would begin about October 1963, and recommended that funding and other appropriate actions be initiated.

New Equipment Training was in four phases. Phase I consisted of staff planners' orientation courses, which were not conducted because of the exception in method of development of the XM16E1. Phase II training had two parts: Part 1, training for personnel who would perform engineer and service tests (also not conducted for the reason aforementioned); and Part 2, training for key instructors in the training base and in USAMC depots and for the key maintenance technicians. Phase III, Part 1, was the publication and distribution of the New Material Introductory Letter, and Part 2 consisted of briefings for appropriate organizations by Materiel Introductory Briefing Teams. Phase IV consisted of training of appropriate organizational personnel by New Equipment Training teams.

By the end of May 1963, funds had been designated for NET and M16 rifles had been requested as an aid in the preparation of lesson plans and programs of instruction. There was a delay of nine months,

from February to November 1963, between approval to purchase and award of the procurement contract. This delay caused slippage in the NET program.

In December 1963, USAWECOM decided to explore the idea of utilizing Air Force experience with the M16 rifle. Specifically, USAWECOM requested USAMC to approve the proposal that the Air Force conduct Part 2 of Phase II, training for key instructor and maintenance personnel. Lackland Air Force Base, San Antonio, Texas, had already conducted training for Air Force personnel and money and time would be saved by using the Air Force experience. USAMC gave its approval and secured Air Force approval of the proposal in December 1963.

In February 1964, USAWECOM informed the Commodity Commands, USCONARC, USAMC, the Commandant, U.S. Marine Corps, and USACDC that NET courses on the 5.56mm XM16E1 rifle would start at Lackland Military Training School approximately 6 April 1964. The purpose of this training as stated was "to train a minimum number of key instructor and/or maintenance personnel." The message asked for the number of men each command wished to send and gave the title, purpose, scope, prerequisites, and length of each course. The following guidance was also given: "The weapon will be distributed to the Special Forces, the Air Assault Division and elements of the Airborne."

The New Materiel Introductory Letter (Part 1, Phase III) was

dispatched on 17 February 1964 to USCONARC, Second and Third Armies, the 11th, 82d, and 101st Divisions, United States Army Forces, Southern Command (USARSO), USAREUR, USARPAC, and others; United States Marine Corps was not included. The letter discussed a myriad of subjects dealing with the M16: descriptive data on the rifle, basis of issue, ammunition, capabilities, military desirability, transportability, logistic support, NET plans, and maintenance doctrine. It also furnished a series of weapons drawings. None of the subjects were discussed in detail.

As a result of the February USAWECOM message announcing NET courses, four Army sergeants, staff sergeants and above, and eight civilians were sent to the courses at Lackland Air Force Base. Two sergeants came from the Ordnance School, one sergeant from the Infantry School, and one from the Quartermaster School. Of the eight civilians who attended, four were from Fort Bragg, one was from Fort Campbell, one from Fort Benning, one from Springfield Armory, and one from USAWECOM.

On 7 May 1964, USAWECOM proceeded with Part 2, Phase III, and with Phase IV by announcing to USCONARC, USAREUR, USARSO, and USARPAC that their commands would be provided the following services:

a. A New Materiel Introductory Briefing Team (NMIBT) concurrent with the delivery of the new XM16E1 Rifle. This team will provide orientation briefings on the XM16E1 to you and staff elements of your Command and where necessary, to staff elements of your subordinate Commands.

b. A New Materiel Training Team (NMTT). This team will be prepared to conduct operational, organizational and field maintenance training at central locations in your Command for a nucleus of key combat and combat-support personnel of units and activities which require this new knowledge.

Both teams were to travel together to the command. The training team would remain in the command to give maintenance training to selected key personnel. USAWECOM requested the commands to specify their requirements for briefing teams and training teams so that USAWECOM could develop a training plan. USCONARC sent a similar message to Third Army, its units, and its installations. Third Army units and installations replied that they wanted both the briefing and the training teams and gave details; USAREUR and USARPAC also requested both teams; USARSO requested only the training team. In June 1964, USARPAC sent a separate message: "Information received from area of operations in SE Asia states that: 'No command and staff briefings and no 1st through 4th echelon FM courses on subject weapons desired.' Personnel who will be issued this weapon and those concerned with its maintenance are qualified on the weapon."<sup>57/</sup>

On 29 July 1964, USAWECOM informed CONARC that a tentative schedule had been established for the teams to visit Fort Campbell,

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<sup>57</sup> Msg, CINCUSARPAC to CGUSAWECOM, 4 Jun 64, sub: Rifle, 5.56mm XM16E1.

Fort Bragg, and Fort Benning, and that because of briefing team schedule and commitments (this referred to visits to oversea Army commands), the earliest date the teams could visit USCONARC was 10-25 September 1964. USAWECOM, in the same message, then questioned the need for NET with USCONARC at all. USAWECOM cited five reasons for excluding NET from USCONARC: (1) shortage of training funds; (2) poor attendance of the instructor training course at Lackland Air Force Base; (3) availability of USAWECOM maintenance specialists — one man was stationed at Fort Campbell, two men at Fort Bragg, and one at Fort Benning — who had attended the Lackland course and were capable of conducting instructor training, thereby precluding the need for NET teams; (4) "The maintenance of the weapon is relatively simple especially in the organizational maintenance level"; and (5) the technical manual had been issued and the capability of providing training "may exist within other units." USAWECOM concluded the message by requesting USCONARC to review its requirements, and "if a real requirement is found to exist, those requirements should be refined. The number of attendees should be reduced to a minimum . . ."

On 4 August 1964, USCONARC asked Third Army to provide an answer to USAWECOM. Third Army replies on 14 August: "This command has no requirement for subject team(s). Necessary orientation and training can be accomplished by resources available at those

installations scheduled to receive XM16E1."

The briefing and training teams visited USAREUR in August 1964. The briefing, given by the Project Manager, encompassed the historical trend of rifle development, results of lethality tests using small caliber projectiles, characteristics of the M16, logistical considerations, information on cleaning materials, and some techniques to be used in employment of the rifle. The briefing contained these two statements:

Tests have shown that the soldier can be trained with the XM16E1 easier than with the current 7.62mm weapons. It is expected that the XM16E1 will produce significantly more experts and significantly fewer unqualified firers than with the currently standard rifle.

The corrosion-resistant materials used in the XM16E1 require a minimum amount of care. Long parts life and functional reliability can be assured with routine care and wiping of parts with a light oil.

On 31 August, USAWECOM offered USCONARC a briefing and demonstration package for presentation during October at Fort Benning, Fort Bragg, and Fort Campbell. These were offered "because of developments in the XM16E1 program. These new innovations were:

A two (2) shot burst control capability.

A "piggy-back" ammunition magazine adaptation.

A shortened version of the weapon weighing 5.1 pounds, for use by tank crews and infantry crew served weapon team members.

A single shot 40mm grenade launcher.

In September, USARSO informed USAWECOM that the training team was no longer desired, that field maintenance personnel had been trained by the USAWECOM maintenance specialist, and that "classes will be conducted in organizational maintenance upon arrival of weapon."

USAWECOM conducted briefings for staffs of Fort Bragg and Fort Campbell during October, for Fort Benning (11th Air Assault Division) during November, and for USARPAC (Fort Shafter, Hawaii, and Okinawa) in December 1964. This concluded the NET program.

Although not a part of the formal NET program, USAWECOM specialists provided valuable training, maintenance, and supply assistance to USCONARC, USARPAC, and USAREUR during 1966 and 1967. Many visits were made to individual units, installations, and training activities in CONUS; at least three trips were made to Vietnam.

## F. Conclusions

1. There were no M16 rifle training programs for replacements assigned to Vietnam from March 1965 to July 1966 except programs for:

a. New soldiers who volunteered for airborne infantry training during basic combat training and who attended infantry advanced individual training at Fort Gordon, Georgia.

b. Beginning March 1966, new soldiers who were selected to be infantry replacements in Vietnam and who attended infantry advanced individual training at Fort Polk.

c. Armorers and small arms repairmen.

d. Infantry officers attending USAIS and infantry candidates for Officer Candidate School.

e. Military assistance training advisers and special warfare personnel attending the special warfare center.

2. With the exception of the training program conducted in 1964 by Lackland Military Training School, which was attended by 12 Army representatives, there was no new equipment training program conducted in the M16 rifle in CONUS.

3. M16 rifle training has not been provided to men transferring to Vietnam from Korea, Europe, or Alaska. A voluntary program exists in Panama.

4. The distribution of rifles to training activities within

USCONARC during 1960 was not managed adequately to insure the optimum use of available rifles.

5. The lack of a blank firing adapter during 1966 and 1967 was a serious restriction to POM training, unit training and Vietnam-oriented infantry AIT training programs.

6. At least until November 1967, a significant number of men failed to receive the required M16 POR training in CONUS because management of POR processing did not identify POR deficiencies satisfactorily and because port calls could not be postponed for the purpose of completing POR training.

7. Rifle malfunctions in Vietnam were due at least in part to inadequate and insufficient CONUS training.

8. Although COMUSMACV had originally requested M16 rifles as early as July 1965 in his "shopping list," and although issue of M16 rifles to Vietnam was being discussed at the Department of the Army between July and December 1965, the DA staff made no training plans nor did the staff request USCONARC to prepare plans.

9. The initial 8-hour POR-POM training program recommended by USCONARC in January 1966 and approved by DA the same month was a product of a shortage of rifles, ammunition, training time, and uncertainties surrounding the issue of rifles to units to be deployed to Vietnam.

10. The initial 8-hour program provided training for infantrymen and the armor intelligence specialist but did not provide training

for men in other MOS armed with M16 rifle.

11. The initial 8-hour program did not require the soldier to zero his rifle or to fire the rifle in the automatic role.

12. In October 1966, USARV decided that it did not desire expansion of M16 rifle training in CONUS to other MOS at the expense of diversion of rifles and ammunition from the theater, even though USARV was experiencing serious malfunctions with the rifle at that time, some of which were attributed to inadequate and insufficient training.

13. POM training in the M16 rifle for deploying units consisted of a minimum of 8-hours, with the exception of at least two units who received less training; some units, notably the airborne, received more than 8-hours training. The units which received 8-hours POM of training or less were inadequately trained. This was especially true in the 1st Infantry Division, which received the rifle in Vietnam, and in the 196th Brigade, which was equipped in CONUS.

14. USARV training directives were adequate beginning in November 1966, but the directives have not been followed in many cases.

15. When DA announced in December 1966 that all units in Vietnam and not merely the combat maneuver battalions would be equipped with the M16 rifle there were no plans at DA or USCONARC for a corresponding expansion of training, nor is there any evidence that training staff officers at DA or USCONARC even knew of the plan to expand M16 rifle issues.

16. The primary factor which hindered the expansion of M16 rifle POR training programs during 1967 was the lack of training time, especially for graduates of service schools and training centers.

17. The 8-hour POR program directed in July 1967 was an improvement over the January 1966 program because it:

Required the man to zero the rifle.

Required the man to fire the rifle in the automatic role.

Increased the number of rounds fired by each man.

Emphasized care and cleaning.

18. The POR training programs of 8 and 16-hours are long enough to teach a man what he has to know but are not long enough to train him thoroughly through repeated practice in the mechanical and marksmanship skills of the M16A1 rifle.

19. The M16 rifle training programs prescribed and conducted in Vietnam-oriented infantry AIT are adequate.

20. The responsibility for POR training at DA and USCONARC headquarters is still not defined.

21. Although previous writings on M16 matters have concluded that misleading literature from Colt's Inc. caused troops to disregard maintenance of the rifle, such conclusions cannot be substantiated by the DA Rifle Review Panel.

22. The training circular, field manual, and technical manual contained contradictory statements and inadequate and incomplete

information.

23. The training circular, field manual, and technical manual were inadequately coordinated and correlated by USAIS and USAWECOM during 1964, 1965, and 1966.

24. The November 1967 USAMC directive relating to coordination of literature is adequate; the comparable USCONARC regulation is inadequate.

25. USAWECOM's interpretation of one Army Regulation resulted in rifles being shipped to users without the technical manuals being packed with the rifles.

26. The P.S. Monthly, if used, is a valuable periodical for keeping users informed of the latest supply and maintenance procedures.

27. Evidence indicates that there is either a lack of knowledge of the pinpoint system of distribution or a lack of user follow up at unit level.

28. It took 11 months to produce a film on care and cleaning of the M16 rifle for which there was an urgent need.

29. Disassembly of the magazine by the user was not officially authorized until the publication of Change 1 to FM 23-9 in February 1968. The March 1967 issue of P.S. Monthly explained the disassembly of the magazine.

30. Valuable maintenance and supply assistance was provided by USAWECOM to various organizations, installations, and training facilities

within USCONARC during 1966 and 1967; similar assistance was provided to USARV.

31. There are possible maintenance advantages to be gained from authorizing the armorer to disassemble the lower receiver group for the purpose of replacing worn and broken parts.

32. The establishment of centralized POR processing points within USCONARC has significantly reduced the number of men who leave CONUS without M16 rifle training. The granting of three additional days to complete POR training will assist in reducing this number still further.

33. The Chief of Staff has already approved M16 rifle training programs for all infantry AIT and for BCT, and the DA staff is studying a plan for oversea commands to provide M16 rifle POR training.

List of Training Literature and Related Training Material

COLT AR-15 - Parts, Accessories, and Armorer's Kit	February 1960
COLT AR-15 - Contractor's Operation Manual	1963
COLT AR-15 - Military Rifle (Brochure)	1963 or 1964
Air Force Manual 50-12 - Rifle, AR-15 Cal. 5.56mm (.223)	30 August 1963
Technical Order 11W3-5-5-1 - Technical Manual - Operating, Maintenance and Repair with Replacement Parts, Rifle, 5.56mm, M16	31 August 1963
Training Circular 23-8 - Rifle, 5.56mm, M16	13 April 1964
Technical Manual 9-1005-249-14 w/five changes Operating, Maintenance and Repair with Replacement Parts, Rifle, 5.56mm, M16 and Rifle, 5.56mm, XM16E1	15 June 1964
FM 23-71 - Rifle Marksmanship	27 July 1964
Technical Manual 9-1005-249-14 w/five changes Operating, Maintenance and Repair with Replacement Parts, Rifle, 5.56mm, M16 and Rifle, 5.56mm, XM16E1	15 November 1964
Field Manual 23-9 - Rifle, 5.56mm, XM16E1	25 January 1965
P.S. - The Preventive Maintenance Monthly - Issue 150	May 1965
P.S. - The Preventive Maintenance Monthly - Issue 155	October 1965
GTA 7-1-14 - VU-Graph Transparencies	February 1966
GTA 9-6-34 - VU-Graph Transparencies	February 1966
Training Film 9-3663, Rifle, 5.56mm, XM16E1, Operation and Cycle of Functioning	May 1966

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FM 23-16 - Automatic Rifle Marksmanship	23 June 1965
Field Manual 23-9 w/one change - Rifle, 5.56mm, XM16E1	12 July 1966
Technical Manual 9-1005-249-14 with four changes Operation, Maintenance, Repair and Replacement Parts, Rifle, 5.56mm, M16; Rifle, 5.56mm, XM16E1; and Launcher, Grenade, 40-mm, XM148	1 August 1966
Graphic Training Aid 7-1-14, Disassembly, immediate action, care and cleaning - charts	September 1966
P.S. - The Preventive Maintenance Monthly - Issue 166	September 1966
P.S. - The Preventive Maintenance Monthly - Issue 167	October 1966
Combat Lessons Bulletin Number 9	28 October 1966
FM 23-71 - Rifle Marksmanship	8 December 1966
USARV Pamphlet Number 750-5 - Preventive Maintenance	14 December 1966
Graphic Training Aid 9-6-34 - Nomen- clature and Functioning - charts	February 1967
P.S. - The Preventive Maintenance Monthly - Issue 172	March 1967
Graphic Training Aid 21-1-3 - M16 Rifle Maintenance Card	April 1967
P.S. - The Preventive Maintenance Monthly - Issue 174	May 1967
M16 Rifle Tips (wallet size card)	June 1967
P.S. - The Preventive Maintenance Monthly - Issue 176	July 1967

Graphic Training Aid 21-1-3 - M16 Rifle Maintenance Card	August 1967
Training Circular 23-20	August 1967
Army Subject Schedule 23-20	August 1967
M16 Preventive Maintenance Indicators for Inspectors (pocket card)	November 1967
P.S. - The Preventive Maintenance Monthly - Issue 180	November 1967
USARV Pamphlet 750-30 - Preventive Maintenance - The M16A1 Rifle	November 1967
P.S. - The Preventive Maintenance Monthly - Issue 181	December 1967
Training Film 21 - 3907, Rifle, M16A1, Care, Cleaning, and Lubrication - Part I	January 1968
Training Film 21-3908, Rifle, M16A1, Care, Cleaning, and Lubrication - Part II, Field Expedients	March 1968

COPY

DEPARTMENT OF THE ARMY  
HEADQUARTERS UNITED STATES CONTINENTAL ARMY COMMAND  
FORT MONROE, VIRGINIA 23351

ATOPS-TNG-CA

13 March 1967

SUBJECT: M16 Rifle Training

TO: Commanding Generals, CONUSAMDW

1. Reference.

a. USCONARC message ATUTR-TNG (CA) 51841, DTG 011545Z  
Feb 66.

b. USCONARC message ATUTR-TNG (CA) 73580, DTG 301910Z  
Dec 66.

2. The purpose of this letter is to establish the objective for M16 rifle marksmanship training. All replacements and members of units going to the Republic of Vietnam (RVN) must receive the most effective M16 rifle training which can be provided with available resources.

3. This headquarters has recently forwarded to Department of the Army a study on the adequacy of M16 rifle firing programs (inclosure). The introduction of the M16 rifle as a standard weapon requires special attention.

a. Two standard rifles in the force structure require development of proficiency with both rifles for selected personnel and units.

b. All M16 rifles have an automatic fire capability which requires an approach different from that with the M14 rifle.

c. Mechanical training, particularly care and cleaning, on the M16 rifle requires detailed practical training.

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4. The objective for M16 rifle marksmanship training is as stated in paragraph 5 (RECOMMENDATIONS) of inclosed study. Request an analysis be made of the capability to attain this objective.

5. Guidance for the above analysis follows:

a. The analysis will consider personnel from training centers alerted for RVN, individuals alerted for RVN, units programmed for deployment to RVN, and units equipped with the M16 rifle.

b. Assume, for the purpose of analysis only, that sufficient M16 rifles and ammunition will be available.

c. Department of the Army policy requires AIT graduates to be ready for shipment upon graduation date, to include completion of required POR processing and orientation training for the personnel being assigned Vietnam. All available time should be utilized in order to prepare trainees on oversea orders for shipment. Port call availability dates for personnel being assigned to Vietnam are established by Department of the Army based on graduation date plus fourteen days for authorized leave.

d. Include in conclusions regarding paragraph 4 above:

(1) Extent to which objective can be attained within existing resources and time available.

(2) Requirements for support of a program that will attain objective.

(3) Recommendations for phased modification of existing M16 rifle marksmanship programs leading to full attainment of objective. In this connection, particular attention is invited to the differences in current programs of firing.

6. Request analysis be submitted to reach this headquarters by 1 May 1967. (Exempt report, subpara. 39c and y, AR 335-15.)

FOR THE COMMANDER:

/s/

1 Incl  
as

SIDNEY GRITZ  
Colonel, AGC  
Adjutant General

Copies furnished:  
ACSFOR, DA  
DCSPER, DA  
Comdt, USAIS  
CO, CDC Inf Agency

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DEPARTMENT OF THE ARMY  
HEADQUARTERS UNITED STATES ARMY INFANTRY SCHOOL  
OFFICE OF THE COMMANDANT  
FORT BENNING, GEORGIA 31905

AJIIS-W

31 Aug 1966

SUBJECT: Blank Firing Attachment for XM16E1

TO: Commanding General  
United States Continental Army Command  
Fort Monroe, Virginia 23351

1. Since December 1963, a basic requirement for a Blank Firing Attachment (BFA) for the XM16E1 Rifle has been in existence. This was refined into a Small Development Requirement (SDR) in May 1964.

2. Informal liaison with the Office of the Project Manager, Rifles indicates that twenty-one (21) type BFAs should be furnished to Springfield Arsenal on or about 1 September 1966 for functioning tests. The capability of Springfield Arsenal to respond adequately and promptly to any requirement grows continually worse through loss of key personnel as inactivation approaches. Informal information from U.S. Army Test and Evaluation Command indicates a highly questionable date of October 1966 for Engineer Test Service Test because of the low priority accorded the BFA relative to SPIW and the XM148 project.

3. During my visit to the United Kingdom in March 1966, I was informed of the existence of a BFA developed for the XM16E1 (or AR15) by the Royal Small Arms Factory, Enfield. The US Army Standardization Group, U.K. provided Headquarters, USAMC with drawings of this BFA on 12 January 1966 and has since forwarded one (1) BFA to Fort Benning. The device has undergone limited (300 rounds) evaluation here and was found to function adequately. I am immediately forwarding this BFA with an evaluation to the Project Manager, Rifles.

4. It is understood that HQ USAMC has recommended to OCRD a limited procurement of 24,274 BFAs and 4,060,000 rounds of blank ammunition (AMC Tech. Com. Item No. 4687).

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AJIIS-W

SUBJECT: Blank Firing Attachment for XM16E1

5. Since the decision was made to utilize the XM16E1 rifle completely in Viet Nam, it becomes increasingly imperative that a BFA be issued with minimum delay to units and individuals training to go to Viet Nam. I know you are well aware that use of blank ammunition has a favorable psychological impact on the new soldier in his training. It adds realism to his tactical training which points out the serious business of training for combat.

6. I strongly urge that action be expedited to field a BFA. At this moment, the Enfield model seems to promise quickest results.

/s/

ROBERT H. YORK  
Major General, USA  
Commandant

Copies furnished:  
CG, USACDC,  
Ft Belvoir, Va  
CG, USAMC,  
Wash., D.C.

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2. AR 310-1, March 62, Military Publications - General Policies
3. CONARC Regulation 310-3, February 63, Preparation and Processing of DA Official Training Literature
4. Ltr, Hq, AMC to C/S USAF, 17 December 63, Sub: Training on the Rifle, 5.56mm M16 (AR15)
5. Msg, CGUSAWECOM to CGUSCONARC, CMC, 10 February 64,
6. Msg, CGUSCONARC to CGUSATHREE, 6 March 64, Sub: Tng in M16(AR15) Rifle
7. Msg, CGUSCONARC to CGUSAWECOM, 28 May 64, Sub: New Material Briefing and Training Team, Rifle 5.56mm, XM16E (AR15)
8. Msg, CINCUSARPAC to CGUSARWC, 4 June 64, Sub: Rifle, 5.56mm XM16E1
9. Msg, CGUSAWECOM to CGUSCONARC, 29 July 64, Sub: Introductory Briefing/ Training Team, XM16E1
10. AR 750-6, August 64, Maintenance Support Planning
11. Msg, CGUSATHREE to CGUSAWECOM, 14 August 64, Sub: Introductory Briefing Training Team, XM16E1
12. Msg, CGUSAWECOM to CGUSCONARC, 31 August 64, Sub: New Material Introductory Briefing, Rifle 5.56mm XM16E1
13. Msg, CGUSATHREE to CGUSAWECOM, 10 September 64, Sub: New Material Introductory Briefing, Rifle 5.56mm XM16E1
14. AR 612-35, November 64, Preparation of Replacements for Oversea Movement (POR)

15. Msg, CGUSCONARC to CGUSATHREE, December 1964, Sub: Availability of 5.56mm Ammunition
16. Msg, CGUSATHREE to CGUSCONARC, 2 December 64, Sub: Availability of Blank and Tracer 5.56mm Ammunition
17. Msg, DA to CGUSCONARC, 28 January 65, Sub: M16 Rifle Requirements for Airborne Volunteer Training
18. Ltr, Hq, Fort Gordon to CGUSCONARC, 15 July 65, Sub: Performance of Rifle, 5.56mm, M16
19. AR 350-12, September 65, New or Modified Equipment
20. Msg, CGUSCONARC to COMDT USAIS, 20 October 65, Sub: Advanced Individual Training for Vietnam Replacements
21. Msg, CGUSCONARC to COMDT USAIS, 28 October 65, Sub: AIT for Vietnam Replacements
22. Msg, DA to CGUSCONARC, 15 November 65, Sub: Advanced Individual Training for Infantry Vietnam Replacements
23. Msg, CINCUSARPAC to CINCPAC, 11 December 65, Sub: Requirement for M16 Rifle and M148 Grenade Launcher
24. Msg, CGUSARV to CINCUSARPAC, 21 December 65, Sub: M16 Rifle Training
25. Msg, CINCUSARPAC to DA, 31 December 65, Sub: M16 Rifle Training
26. Msg, DA to CGUSCONARC, 12 January 66, Sub: M16 Rifle Training
27. Msg, DA to CINCUSARPAC, 12 January 66, Sub: M16 Rifle Training
28. Msg, CGUSCONARC to DA, 21 January 66, Sub: M16 Rifle Training

29. Msg, USCONARC to DA, 21 January 66, Sub: M16 Rifles
30. Msg, DA to CGUSCONARC, 27 January 66, Sub: M16 Rifle Training
31. Msg, CGUSCONARC to CGUSATHREE, 31 January 66, Sub: M16 Rifle Training
32. Msg, CGUSCONARC to CONUS ARMIES and Schools, 1 February 66, Sub: M16 Rifle Training
33. DF, Director of Manpower, DA to Coordination Branch, 11 February 66, Sub: Congressional Backup Information for Army Posture/Authorization and Appropriations Hearings, Second Session, 89th Congress
34. Msg, CGUSCONARC to CGUSAFIVE, 15 February 66, Sub: M16 Rifle Training
35. Msg, CGUSAONE to CGUSCONARC, 23 February 66, Sub: M16 Rifle Training Interim Progress Report
36. Msg, CGUSATHREE to CGUSCONARC, 23 February 66, Sub: M16 Rifle Training
37. Ltr, Hq, Fifth Army to CGUSCONARC, 24 February 66, Sub: Progress Report, M16 Rifle Training
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39. Msg, CGUSASIX to CGUSCONARC, 24 February 66, Sub: M16 Rifle Training
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42. Notes, CGUSCONARC to CONUS Armies and Schools, April 66, Sub: POR Deficiencies
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- 46. Msg, DA to CGUSAMC, 27 June 66, Sub: Distribution of XM16E1 Rifle and Basic Load Cartridge
- 47. Fact Sheet, DCSUTR CONARC, 28 June 66
- 48. Msg, CGUSASIX to CGUSCONARC, 30 June 66, Sub: M16 Rifle Training
- 49. Msg, CGUSAONE to CGUSCONARC, 7 July 66, Sub: M16 Training
- 50. Fact Sheet, DCSUTR CONARC, 8 July 66
- 51. Msg, CGUSATHREE to CGUSAIC, 3 August 66, Sub: XM16E1 Rifle Distribution
- 52. DF, DCSPER-DIT to CSD, 19 August 66, Sub: USCONARC Readiness Presentation
- 53. Msg, DA to CINCUSARPAC, 12 September 66, Sub: M16 Rifle Training
- 54. DF, ACofS, G3 to DCG USARV, 7 October 66
- 55. Msg, CGUSARV to CINCUSARPAC, 10 October 66, Sub: M16 Rifle Training
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